CITY OF CANTON

FULTON ROAD / PARK DRIVE INTERSECTION IMPROVEMENT

CITY OF CANTON, OHIO

G.P. 1077 ODOT PID: 86379

THIS IS AN AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 PROJECT.

SEE BOTH PLANS AND SPECIFICATIONS FOR REQUIREMENTS UNIQUE TO THIS FUNDING SOURCE.

CITY OF CANTON HIGHWAY PROJECT

FULTON ROAD / PARK DRIVE

INTERSECTION IMPROVEMENTS

CITY OF CANTON STARK COUNTY, OHIO

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PROJECT DESCRIPTION

INTERSECTION IMPROVEMENT OF STADIUM PARK DRIVE, FULTON ROAD (STATE ROUTE 687), AND PARK DRIVE INTERSECTION IN THE CITY OF CANTON, INCLUDING INSTALLATION OF A NEW TRAFFIC SIGNAL AND NEW TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS. THERE IS 1200 FEET OF APPROACH WORK ON STADIUM PARK DRIVE AND 350 FEET OF APPROACH WORK ON PARK DRIVE, INCLUDING FULL DEPTH PAVEMENT REPLACEMENT, CURB, SIDWALK, AND STORM SEWERS. FULTON ROAD WILL BE PLANED AND

PROJECT DISTURBED AREAS

PROJECT EARTH DISTURBED AREA = 0.79 ACRES ESTIMATED CONTRACTOR EARTH DISTURBED AREA = 0.25 ACRES. TOTAL EARTH DISTURBED AREA = 1.04 ACRES. NOTICE OF INTENT EARTH DISTURBED AREA = 4.90 ACRES.

2008 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

UNDER AUTHORITY OF SECTION 4511.21, DIVISION (H) OF THE OHIO REVISED CODE, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON PLAN SHEET NO. 5, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

| OF CANTON AT A MEETING HELD | |
|---|--------|
| THIS DAY OF | , 2010 |
| PRESIDENT | |
| 18 - 7 E PREMI PLE CANTENNA DE SENTA DE SENTA DE PERE | |

APPROVED BY THE PLANNING COMISSION OF THE CITY

APPROVED AND RECOMMENDED FOR ACCEPTANCE BY THE CANTON CITY ENGINEER

TRACINGS SUBMITTAL FEBRUARY 4, 2010

LATITUDE: N 40°49'25" LONGITUDE: W 81°23'40"

SCALE IN MILES 2



| DESIGN DESIGNATION | STADIUM PARK DRIVE | PARK DRIVE | FULTON ROAD (S.R. 687) |
|----------------------------------|-----------------------|-----------------------|---------------------------|
| CURRENT ADT (2007) | 2600 | | 21,000 |
| DESIGN YEAR ADT (2030) | 2700 | | 21,900 |
| DESIGN HOURLY VOLUME (2027) | | | |
| DIRECTIONAL DISTRIBUTION | | | |
| TRUCKS (24 HOUR B&C) | | | 1.4% |
| DESIGN SPEED | 25 MPH | 35 MPH | 40 MPH |
| LEGAL SPEED | 20 MPH | 35 MPH | 35 MPH |
| DESIGN FUNCTIONAL CLASSIFICATION | URBAN LOCAL STREET | URBAN LOCAL STREET | URBAN MINOR ARTERIAL |

DESIGN EXCEPTIONS NONE REQUIRED

UNDERGROUND UTILITIES CONTACT BOTH SERVICES CALL TWO WORKING DAYS BEFORE YOU DIG 1-800-362-2764 (TOLL FREE) OHIO UTILITIES PROTECTION SERVICE NON-MEMBERS

MUST BE CALLED DIRECTLY OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:

HAMMONTREE & ASSOCIATES, LIMITED 5233 STONEHAM ROAD NORTH CANTON, OHIO 44720

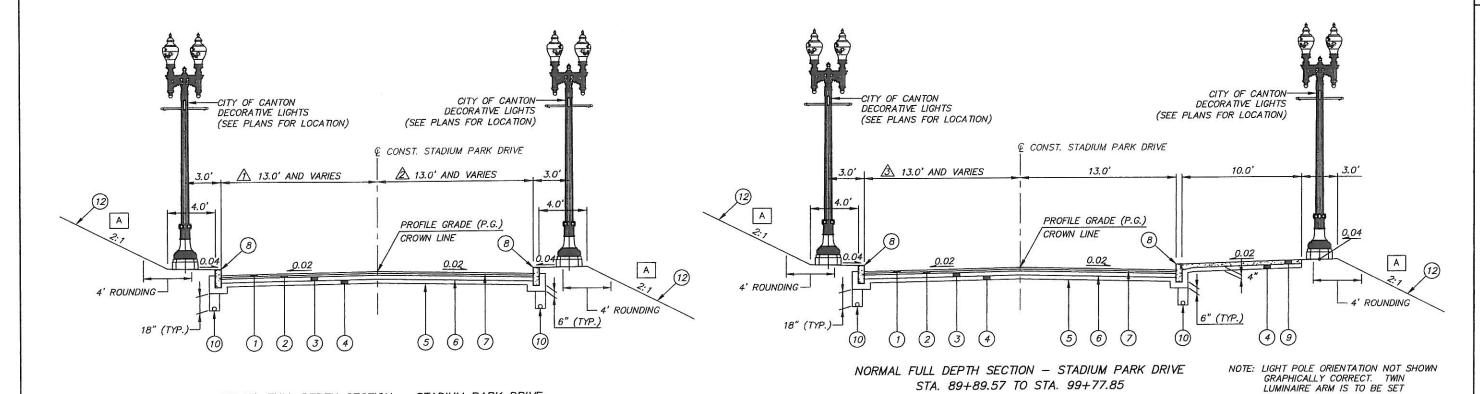
| | 0.1 | D.O.T. STAN | NDARD CC | NSTRUCTIO | ON DRAWIN | IGS | | (1)(5 -)(프리) - (프리)()() | NTON STANDARD TION DRAWINGS | SUPPLEMENTAL SPECIFICATIONS |
|--------------------------------|--------|-------------|----------|-----------|-----------|---------|------------------------|--|--------------------------------|--------------------------------|
| | BP3.1 | 10-19-07 | MH-1.2 | 1-20-06 | MT-35.10 | 4-20-01 | CITY ST | D. #2 | | 800-2008 1-15-10 |
| | BP-4.1 | 17-28-00 | | | MT-95.31 | 4-17-09 | CITY ST | D. #46 | | 832 5-5-09 |
| | BP-5.1 | 17-28-00 | DM-1.1 | 10-21-05 | MT-95.32 | 7-17-09 | | | | |
| ENGINEEDC CEAL. | BP-7.1 | 1-19-07 | DM-1.2 | 10-21-05 | MT-97.10 | 4-17-09 | | | | |
| ENGINEERS SEAL: | | | DM-1.4 | 1-21-05 | MT-97.11 | 4-17-09 | NO COMPANY AND COMPANY | | | |
| | GR-1.1 | 4-18-03 | DM-4.2 | 1-21-05 | MT-97.12 | 4-17-09 | | | | |
| WHITE OF THE | GR-2.1 | 1-16-04 | DM-4.4 | 4-17-09 | MT-101.60 | 4-17-09 | | 1 (100 minutes (1 (1 (1 minutes (| | |
| ATE OF OROGINAL SERVICE STREET | GR-5.3 | 1-16-04 | | | MT-105.10 | 1-16-09 | | | | |
| i / william \ i | | | TC-41.20 | 1-19-01 | | | | | | |
| * CROXTONIV * | RM-1.1 | 7-18-08 | TC-41.41 | 1-19-01 | | | | | | SPECIAL |
| | RM-3.1 | 4-18-03 | TC-42.20 | 7-16-04 | | | | | | PROVISIONS |
| SOISTERS CHARLES | | | TC-52.10 | 1-19-07 | | | | | | |
| TO NAL ENIM | CB-1.1 | 7-15-05 | TC-52.20 | 1-19-07 | | | | | | |
| Jim Cota | CB-2.2 | 7-15-05 | TC-71.10 | 1-16-09 | | | | | | |
| IGNED: W ROGER | | | TC-73.10 | 1-19-01 | | | | | | |
| ATE: 2/4/2010 | HW-2.1 | 1-20-06 | TC-83.20 | 1-19-07 | | | | | | |



/ PARK DRIVE IMPROVEMENT

PARALLEL OR IN-LINE WITH CURB AND FLAG HOLDER FACES THE

ROADWAY.



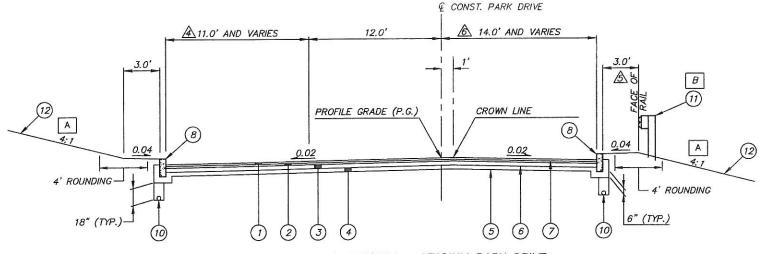
PROPOSED LEGEND:

- 1) ITEM 448 1" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
- (2) ITEM 448 1 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
- (3) ITEM 301 4" ASPHALT CONCRETE BASE, PG64-22
- (4) ITEM 304 AGGREGATE BASE (4" UNDER WALK, 6" UNDER ROADWAY)
- (5) ITEM 204 SUBGRADE COMPACTION
- (6) ITEM 407 TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL./S.Y.)
- (7) ITEM 408 PRIME COAT (0.40 GAL./S.Y.)
- (8) ITEM 609 CURB TYPE 6
- (9) ITEM 608 4" CONCRETE WALK
- (10) ITEM 605 4" SHALLOW PIPE UNDERDRAINS WITH FABRIC WRAP, 707.33
- (11) ITEM 606 GUARDRAIL, TYPE 5
- (12) ITEM 659 SEEDING AND MULCHING

NORMAL FULL DEPTH SECTION - STADIUM PARK DRIVE

STA. 88+00.00 TO STA. 89+89.57

- A UNLESS OTHERWISE SHOWN IN CROSS SECTIONS. (2:1 MAX)
- B GUARDRAIL LIMITS PARK DRIVE: STA. 202+44.16 TO STA. 205+68.30, RT.
- A VARIES: 11.7' TO 13.0' STA. 88+00.00 TO STA. 88+50.00
- 2 VARIES: 13.5' TO 13.0' STA. 88+00.00 TO STA. 88+50.00
- A VARIES: 13.0' TO 17.0' STA. 98+68.13 TO STA. 99+28.13
- A VARIES: 11.0' TO 0.0' STA. 201+56.12 TO STA. 202+66.07
- ⚠ 6.0' FOR PROPOSED GUARDRAIL
- A VARIES: 18.0' TO 14.0' STA. 200+61.36 TO STA. 201+19.23



NORMAL FULL DEPTH SECTION - STADIUM PARK DRIVE STA. 200+31.79 TO STA. 203+50.00

GENERAL:

ROUNDING:

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN.

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

AT&T OHIO

ATTN: CANDIE ORR

ATTN: JIM JONES

AKRON, OHIO 44308

PHONE: 330-270-8810

EMAIL: CO7935@ATT.COM

1701 MAHONING ROAD N.E.

CANTON, OHIO 44705

PHONE: 330-451-2314

FAX: 330-453-9044

50 WEST BOWERY STREET, 4TH FLOOR

STARK CO. METRO. SEWER DISTRICT

EMAIL: JRJONES@CO.STARK.OH.US

AMERICAN ELECTRIC POWER ATTN: RAY ZITNEY 301 CLEVELAND AVENUE S.W. CANTON, OHIO 44702 PHONE: 330-438-7718 FAX: 330-438-7338

CANTON WATER DEPARTMENT ATTN: TYLER CONVERSE 2664 HARRISBURG ROAD N.W. CANTON, OHIO 44705 PHONE: 330-489-3310 FAX: 330-489-3073

EMAIL: RLZITNEY@AEP.COM

DOMINION EAST OHIO ATTN: MARY J. LONG 320 SPRINGSIDE DRIVE, SUITE 320 AKRON, OH 44333 PHONE: 330-664-2409 FAX: 330-266-2127 EMAIL: MARY.J.LONGM@DOM.COM

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CONSTRUCTION NOISE:

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 6 P.M AND 8 A.M. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

ELEVATION DATUM:

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM USING REFERENCE DATUM NAV 1988.

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CLEARING AND GRUBBING:

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201-CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

| TOTAL | SIZES | NO. TREES | NO. STUMPS |
|-------|-------|-----------|------------|
| 6 | 18" | 6 | 0 |
| 0 | 30" | 0 | 0 |
| 0 | 48" | 0 | 0 |
| 0 | 60" | 0 | 0 |

ITEM 204-PROOF ROLLING:

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204-PROOF ROLLING

4 HOURS

ROADWAY:

ITEM 202-REMOVAL MISC.:REMOVE AND REERECT GATE: PARK GATES MARKED FOR REMOVAL ON PLAN SHEET NO. 13 SHALL BE CAREFULLY REMOVED AND STORED ON PARK PROPERTY FOR SALVAGE AND REUSE BY CITY OF

ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE ABOVE NOTED WORK SHALL BE INCLUDED IN THE UNIT COST BID.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAII ITEMS.

ITEM SPECIAL-PRECONSTRUCTION VIDEO TAPING, AS PER PLAN: THE CITY OF CANTON SHALL REQUIRE AN AUDIOVISUAL TAPE OF THE PROJECT LIMITS AND ADJACENT AREAS

THE TAPE SHALL BE VHS OR DVD FORMAT AND A COPY SHALL BE RETAINED AT THE CITY OF CANTON-ENGINEER'S OFFICE. THIS SHALL BE MADE IN ACCORDANCE WITH CITY OF CANTON SPECIFICATIONS AND SHALL BE TO THE SATISFACTION OF THE ENGINEER, TO BE PAID FOR AS FOLLOWS:

ITEM SPECIAL-PRECONSTRUCTION VIDEO TAPING, AS PER PLAN LUMP

RETAINING WALL:

ITEM SPECIAL-RETAINING WALL, MISC.: MODULAR BLOCK WALL THIS ITEM SHALL CONSIST OF CONSTRUCTING MODULAR BLOCK RETAINING WALLS AT THE LOCATIONS SHOWN IN THE PLANS AND PER DETAILS ON PLAN SHEET NO. 30. THE WALLS SHALL BE "ALLAN BLOCK" AS MANUFACTURED BY THE ALLAN BLOCK CORPORATION OR "VERSA-LOK" AS MANUFACTURED BY KILTIE CORPORATION OR APPROVED EQUAL.

ALLAN BLOCK CORPORATION 5200 EDINA INDUSTRIAL BOULEVARD, SUITE 100 EDINA, MINNESOTA 55439 PHONE: 952-835-5309 FAX: 952-835-0013 www.allanblock.com

KILTIE CORPORATION 6348 HIGHWAY STATE 1 OAKDALE, MINNESOTA 55128 PHONE: 651-770-3166 FAX: 651-770-4089 www.versa-lok.com

THE COLOR OF THE WALLS SHALL BE DARK GRAY AND THE FINISH SHALL BE A NATURAL STONE TEXTURE.

BEDDING SHALL BE CRUSHED STONE AGGREGATE AS PER ODOT CMS ITEM 304. BACKFILL SHALL BE NO. 57 CRUSHED STONE AGGREGATE. GEOGRID REINFORCEMENT SHALL BE REQUIRED FOR WALL SECTIONS 3.5 FEET OR TALLER. GEOGRID SHALL BE "TENSAR BX-1100" AS MANUFACTURED BY TENSAR EARTH TECHNOLOGIES, INC. OR APPPROVED FOUAL.

TENSAR EARTH TECHNOLOGIES 5883 GLENRIDGE DRIVE, SUITE 200 ATLANTA, GEORGIA, 30328 PHONE: 404-250-1290 FAX: 404-250-0461 www.tensarcorp.com

A FOUNDATION UNDERDRAIN SHALL ALSO BE PROVIDED ALONG EACH WALL. THE WALL UNDERDRAIN SHALL BE CONNECTED TO THE PROPOSED ROADWAY UNDERDRAIN USING 4" PERFORATED CONDUIT, TYPE F AS PER ODOT CMS ITEM 603.

THE METHOD OF MEASUREMENT SHALL BE THE NUMBER OF SQUARE FEET OF EXPOSED WALL FACE.

ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE ABOVE DESCRIBED WORK, INCLUDING BUT NOT LIMITED TO BEDDING, BACKFILL, EXCAVATION, GEOGRID, FOUNDATION UNDERDRAIN, AND TYPE F CONNECTION, SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM SPECIAL-RETAINING WALL MISC: MODULAR BLOCK WALL (SQ. FT.)

ROADWAY:

ITEM 606-ANCHOR ASSEMBLY, TYPE E-98 THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS, OR AN APPROVED EQUAL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE AT WWW.DOT.STATE.OH.US/DRRC/ UNDER ROADSIDE SAFETY

DEVICES FOR APPROVED GUARDRAIL END TREATMENTS:

1. THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

| DWG.# | DRAWING NAME | DWG./REV. DATE | ODOT APPROVAL DATE |
|-------|---|-------------------|-----------------------|
| SS142 | ET-2000 PLUS 50'-0" PLAN, ELEVATION & SECTION 25'-0" RAIL, SLEEVE W/ PL POSTS 1-4 | 4/12/00 | 7/31/00 |
| SS141 | ET-2000 PLUS PLAN, ELEVATION & SECTION 25'-0" RAIL, HBA POSTS 1-4 | 2/29/00 | 7/31/00 |
| SS158 | ET-2000 PLUS 50'-0" WITH 12'-6" PANELS & HBA POSTS 1-4 PLAN, ELEVATION & SECTION | 5/22/00 | 7/31/00 |
| SS330 | ET-2000 PLUS 50'-0" WITH FOUR FOUNDATION TUBES AND FOUR CRT POSTS | 3/28/06 | 3/29/06 |
| SS373 | ET-2000 PLUS 50'-0" WITH 7 SYT POSTS AND ONE HBA POST | 6/20/09 | 1/20/09 |

2. THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OH, 44224 (TELEPHONE: 330-346-0721)

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

| DWG.# | DRAWING NAME | DWG./REV. DATE | ODOT APPROVAL DATE |
|----------------------|---|-------------------|-----------------------|
| SKT-4M | SEQUENTIAL KINKING TERMINAL (SKT- 350) ASSEMBLY WITH 4 FOUNDATION TUBES | 12/11/97 | 3/6/98 |
| SKT HINGED CRT | SEQUENTIAL KINKING TERMINAL (SKT— 350) FOUR POSTS ARE STEEL HINGED AND FIVE POSTS ARE CRT | 4/30/06 | 5/23/06 |
| SKT-SP | SEQUENTIAL KINKING TERMINAL (SKT– 350) A SEVEN POST OPTION USING STANDARD STEEL POST | 3/30/09 | 3/4/09 |

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" X 18", OR 12" X 18" IF APPLIED TO A RECTANGULAR ET-2000 "PLIS" EXTRUDER HEAD.

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4-INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4-INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

DRAINAGE:

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES: WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES FROM THE CITY OF CANTON, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

RESIDENTIAL AND COMMERCIAL DRAINAGE CONNECTIONS: FURNISH A CONTINUANCE FOR ALL UNRECORDED STORM WATER DRAINAGE, SUCH AS ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

| ITEM 603-4" CONDUIT. TYPE B | 100 FT. |
|-----------------------------|---------|
| ITEM 603-4" CONDUIT. TYPE C | 100 FT. |
| ITEM 603-6" CONDUIT, TYPE B | 100 FT. |
| ITEM 603-6" CONDUIT, TYPE C | 100 FT. |

MANHOLES AND CATCH BASINS REMOVED OR ABANDONED: ALL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT OF WAY FOR SALVAGE BY THE CITY OF CANTON. BULKHEADS SHALL BE USED FOR PIPES ENTERING ABANDONED MANHOLES. A CAP SHALL BE PLACED ON THE ABANDONED MANHOLE.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

MANHOLE ADJUSTED TO GRADE, AS PER PLAN: GRADE RINGS SHALL NOT BE USED TO ADJUST MANHOLES TO GRADE. ALL OTHER REQUIREMENTS SHALL STILL BE APPLICABLE.

DRAINAGE:

ITEM SPECIAL- MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR?'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL SHALL MEET ITEM 604 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM SPECIAL-MISCELLANEOUS METAL

1000 POUNDS

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH LEAN GROUT, ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED IN ACCORDANCE WITH THE PROVISIONS OF 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

ITEM 604 - CATCH BASIN, NO. 3A, AS PER PLAN: THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF AN ITEM 604-CATCH BASIN, NO.

STEPS SHALL BE ALIGNED AND CONFORM TO ODOT SCD MH-1.1.

3A, AS PER PLAN, PER THE DETAIL SHOWN ON PLAN SHEET NO. 29.

ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE ABOVE NOTED WORK SHALL BE INCLUDED IN THE UNIT COST BID.

EROSION CONTROL:

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

| | LOCAL FUNDS | FEDERAL FUNDS |
|--------------------------------------|-----------------|---------------|
| ITEM 659-SOIL ANALYSIS TEST | 1 EACH. | 1 EACH. |
| ITEM 659-TOPSOIL | 330 CU. YD. | 101 CU. YD. |
| ITEM 659-SEEDING AND MULCHING | 2972 SQ. YD. | 907 SQ. YD. |
| ITEM 659-REPAIR SEEDING AND MULCHING | 149 SQ. YD. | 45 SQ. YD. |
| ITEM 659-INTER-SEEDING | 149 SQ. YD. | 45 SQ. YD. |
| ITEM 659-COMMERCIAL FERTILIZER | <u>0.67 TON</u> | 0.20 TON |
| ITEM 659-LIME | 0.61 ACRES | 0.19 ACRES |
| ITEM 659-WATER | 24 M. GAL. | 7 M. GAL. |
| | | |

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT OF WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT OF WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT. CONSTRUCT CATCH BASINS, CITY STD. DWG. #2, AT THE LOCATIONS SPECIFIED IN THE PLANS.

PAVEMENT:

PART-WIDTH CONSTRUCTION:

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

PAVEMENT RESTORATION FOR PIPE INSTALLATIONS:

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION OF PIPES UNDER ITEM 603.

ITEM 301-ASPHALT CONCRETE BASE, PG64-22

6 CU. YD.

THE ABOVE QUANTITY IS BASED ON A 301 THICKNESS OF 4 INCHES AND A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH, SEE STANDARD CONSTRUCTION DRAWING DM-1.4 FOR TRENCH WIDTH FORMULA AND CALCULATION.

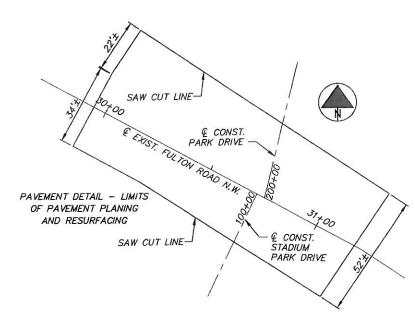
PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

ITEM 304-AGGREGATE BASE, AS PER PLAN:

GRANULATED SLAG (GS) SHALL NOT BE PERMITTED FOR THIS ITEM. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17 OF THE CONSTRUCTION AND MATERIAL SPECIFICIATIONS SHALL STILL BE APPLICABLE.

PAVEMENT PLANING AND RESURFACING ON FULTON ROAD:

FULTON ROAD WILL BE PLANED AND RESURFACED BETWEEN THE SAW CUT LINES AS INDICATED IN THE PLANS. THE MILLING DEPTH SHALL BE 2.5 INCHES TO MATCH THE DEPTH OF ITEM 448 ASPHALT CONCRETE PAVEMENT. THE EXISTING CROSS SLOPES AND GRADES SHALL BE MAINTAINED ALONG FULTON ROAD. LIMITS ARE SHOWN PER DETAIL THIS SHEET.



MAINTENANCE OF TRAFFIC:

MAINTENANCE OF TRAFFIC:

PRIOR TO THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT TO CITY OF CANTON ENGINEER AND THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT), DISTRICT 4 OFFICE, A PROPOSED PROJECT CONSTRUCTION SCHEDULE AND A DETAILED MAINTENANCE OF TRAFFIC PLAN FOR PARK DRIVE/FULTON ROAD. BOTH THE SCHEDULE AND MAINTENANCE OF TRAFFIC PLAN SHALL BE APPROVED BY THE CITY OF CANTON AND ODOT DISTRICT 4 PRIOR TO THE START OF CONSTRUCTION. THE MAINTENANCE OF TRAFFIC PLAN SUBMITTED BY THE CONTRACTOR MUST BE PREPARED BY AN OHIO LICENSED PROFESSIONAL ENGINEER. COST OF THIS WORK TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614-MAINTAINING TRAFFIC.

STADIUM PARK DRIVE, FROM 650 FEET SOUTH OF ITS INTERSECTION WITH HARRISON AVENUE TO FULTON ROAD, MAY BE CLOSED FOR UP TO 45 CALENDAR DAYS TO CONSTRUCT THE FULL DEPTH PAVEMENT, CURB, SIDEWALK, STORM SEWERS, AND RETAINING WALLS AT THE LOCATIONS SPECIFIED IN THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP AND PROVIDE THE SIGNS FOR A DETOUR PLAN. THE DETOUR PLAN SHALL BE SUBMITTED TO THE CITY OF CANTON AND ODOT DISTRICT 4 TWO WEEKS PRIOR TO CLOSING OF STADIUM PARK DRIVE FOR

THE CONTRACTOR SHALL ALSO CLOSE SOUTHBOUND PARK DRIVE, BETWEEN FULTON ROAD AND ORCHARD PARK DRIVE FOR A PERIOD NOT TO EXCEED 21 CALENDAR DAYS TO CONSTRUCT THE FULL DEPTH PAVEMENT, CURB, SIDEWALK, AND STORM SEWERS AT THE LOCATIONS SPECIFIED IN THE PLANS. TRAFFIC ON NORTHBOUND PARK DRIVE SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION SINCE THIS ROAD PROVIDES ACCESS TO NORTHBOUND I.R. 77. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP AND PROVIDE THE SIGNS FOR A DETOUR PLAN. THE DETOUR PLAN SHALL BE SUBMITTED TO THE CITY OF CANTON AND ODOT DISTRICT 4 TWO WEEKS PRIOR TO CLOSING OF STADIUM PARK DRIVE FOR APPROVAL.

A MINIMUM OF ONE (1) ELEVEN FOOT LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON FULTON ROAD AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, TEMPORARY PAVEMENT MARKINGS, TEMPORARY SURFACES USING ITEMS 410 AND 616. AND ITEM 615-PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A. ACCESS TO ALL DRIVEWAYS SHALL ALSO BE MAINTAINTED AT ALL TIMES EXCEPT THE TIME WHEN CONCRETE CURB OR DRIVE APPROACHES ARE CURING. A MINIMUM OF ONE (1) DRIVEWAY SHALL BE OPEN AT ALL TIMES ON BOTH FULTON ROAD AND PARK DRIVE TO ALLOW ACCESS ONTO THE PROPERTY OF MAC'S CONVENIENCE STORES, LLC (MARATHON GAS STATION).

CONES ARE NOT AN ACCEPTABLE TRAFFIC CONTROL DEVICE FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUNSET OR ONE HALF-HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE BARRICADES OR DRUMS AT A MAXIMUM SPACING OF FIFTY (50) FEET.

LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.

THE CONTRACTOR IS RESPONSIBLE TO COORDINATE THE MAINTENANCE OF TRAFFIC PLAN WITH THE ANNUAL PRO FOOTBALL HALL OF FAME ENSHRINMENT FESTIVAL. CONTACT JOANNE MURRAY (330-458-2050) TO OBTAIN A SCHEDULE OF EVENTS AND TO COORDINATE WITH THE ABOVE NOTED CLOSURE PERIODS SO THAT ALL ROADS ARE OPEN TO TRAFFIC. THE CONTRACTOR MUST VERIFY THE EXACT DATES PRIOR TO ANY

THE CONTRACTOR SHALL ERECT TEMPORARY STOP SIGNS PRIOR TO REMOVING ANY EXISTING STOP SIGN THAT WILL GET DISTURBED DURING CONSTRUCTION. THE TEMPORARY STOP SIGN SHOULD BE PLACED OUTSIDE THE CONSTRUCTION LIMITS, YET CLEARLY VISIBLE TO APPROACHING TRAFFIC.

ERECT ALL REQUIRED SIGNS ON THEIR OWN POSTS. DO NOT USE ANY EXISTING SIGN SUPPORT TO MOUNT A TRAFFIC CONTROL SIGN. REFER TO CMS SECTION 614.03, THIRD AND FOURTH PARAGRAPHS. DEVICES USING OTHER THAN TYPE "G" OR TYPE "H" SHEETING ARE NOT ACCEPTABLE.

INSTALL YELLOW WORK ZONE CENTERLIINE MARKINGS WHERE NEEDED TO ALL PAVEMENT COURSES THAT WILL BE EXPOSED TO TRAFFIC AT THE END OF THE DAY'S OPERATION. AFTER EXPOSING THE MARKINGS TO TRAFFIC, RETRACE ANY WORN OFF MARKINGS WHEN DIRECTED BY THE ENGINEER. APPLY THE WORK ZONE MARKINGS IN A NEAT. TRUE LINE.

MAINTENANCE OF TRAFFIC:

MAINTENANCE OF TRAFFIC: (CONTINUED)

USE 740.02 TYPE 1 PAINT, CLASS II MARKINGS ON ANY SURFACE THAT WILL SUBSEQUENTLY BE REMOVED BY GRINDING OR COVERED BY ANOTHER ASPHALT COURSE, AND 740.06 TYPE I (REMOVABLE) CLASS II MARKINGS BEFORE THE PERMANENT SURFACE COURSE MARKINGS ARE APPLIED. PAINTED MARKINGS SHALL BE IN ACCORDANCE WITH 614.11.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN SAFE AND SATISFACTORY LOCAL ACCESS, VEHICULAR AND PEDESTRIAN, TO ALL ABUTING PROPERTIES WITHIN THE PROJECT. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND SUBSEQUENTLY REMOVE ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, BARRIERS, TEMPORARY PAVEMENT, LIGHTING, FLAGMEN, TEMPORARY GUARDRAIL, TRAFFIC MAINTENANCE SIGNING AND OTHER TRAFFIC CONTROLS SO AS TO AVOID DAMAGE AND/OR INJURY TO AND ENSURE THE SAFETY OF VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION BOTH WITHIN AND OUTSIDE THE

THE CONTRACTOR SHALL NOTIFY THE CITY OF CANTON POLICE DEPARTMENT (330-489-3100). THE CANTON FIRE DEPARTMENT (330-489-3411), THE STARK COUNTY SHERIFF DEPARTMENT (330-430-3800), THE CITY OF CANTON-ENGINEERS OFFICE (330-489-3381), THE PLAIN LOCAL SCHOOL DISTRICT (330-492-3500) AND THE CANTON CITY SCHOOL DISTRICT (330-438-2500) AT LEAST 72 HOURS IN ADVANCE OF ANY STREET CLOSING OR TRAFFIC CHANGE.

MAINTAINING TRAFFIC SHALL BE IN ACCORDANCE WITH ODOT ITEM 614 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614-MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

MAINTENANCE OF TRAFFIC:

ITEM 614-LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS: USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED IN THIS NOTE WILL NOT GENERALLY BE PERMITTED AT PROJECT COST UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE ENGINEER. LEOS SHOULD NOT BE USED WHERE THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS:

- 1.) DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- 2.) DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OF THE FLOW OF TRAFFIC OR WHEN TRAFFIC TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).
- 3.) FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SET UP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.
- 4.) WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONES OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHOULD REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER.

THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEO'S (WITH PATROL CAR) REQUIRED BY THE MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614-LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614-LAW ENFORCEMENT OFFICER WITH PATROL CAR 100 HOURS FOR ASSISTANCE

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614-LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH:

221 THIRD STREET S.W. CANTON, OHIO 44702 PHONE: 330-489-3100

CITY OF CANTON POLICE DEPARTMENT STARK COUNTY SHERIFF'S DEPARTMENT 4500 ATLANTIC BOULEVARD N.E. CANTON, OHIO 44705 PHONE: 330-430-3800

| PFI | CE CAL | _CS | | | | | | | , | | SHEE | T NUI | MBEK | 1 | Υ | | | | | | PARTIC | IPA IIUN | T | ITEM | GRAND | | |
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| D | LOCAL | | 3 | 4 | | 9 | 10 | 11 | 12 | | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 27 | 30 | 53 | FEDERAL | LOCAL | ITEM | EXT. | TOTAL | UNIT | DESCRIPTION |
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| + | | | | | | | | | - | | | | | | | | | | | | | | | | | | ROADWAY |
| + | | -+ | LUMP | | | | | | | | | | | | | | | | | | 39% | 61% | 201 | 11000 | LUMP | | CLEARING AND GRUBBING |
| + | | | LUMI | | | | | - | | | | | | | | | | 17 | | | 17 | | 201 | 23000 | 17 | SQ YD | PAVEMENT REMOVED |
| + | | | | | | 0000 | | | - | | - | | | | | | | | | | | 2660 | 202 | 30000 | 2660 | SO FT | WALK REMOVED |
| 1 | | | | | | 2660 | | | | | | | | | | | | | | | 230 | 44 | 202 | 32000 | 274 | | CURB REMOVED |
| | | | | | | 274 | | | | | | | | | | | | | | | | 75/ | | | | 1000000 | |
| 1 | | | | | | 410 | | | | | | | | | | | | | | | 79 | 331 | 202 | 35100 | 410 | FI | PIPE REMOVED, 24" AND UNDER |
| 1 | | | | | | | | | | | | | | | | | | | | | 100 | | 202 | 38000 | 100 | ET | GUARDRAIL REMOVED |
| | | | | | | 100 | | | | | | | | | | | | | | | | | | | | | CATCH BASIN REMOVED |
| | | | | | | 13 | | | | | | | | | 2 | | | | | | 4 | 9 | 202 | 58100 | | | |
| T | | | | | | 68 | | | | | | | | | | | | | | | 50 | | | 202E70000 | 68 | | FILL AND PLUG EXISTING CONDUIT, SPECIAL |
| 1 | | | | | | 2 | | | | | | | | | | | | | | | | 2 | 202 | 98100 | | | REMOVAL, MISC.: REMOVE AND REERECT GATE |
| 1 | | | | | | | | | | | 1568 | 370 | 201 | 286 | 505 | 165/124 | 363 | 42 | | | 570 | 3054 | 203 | 10000 | 3624 | CU YD | EXCAVATION |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | - | | | | | | | 163 | 91 | 40 | 33 | 39 | 33/16 | 87 | 21 | | | 141 | 382 | 203 | 20000 | | | EMBANKMENT |
| Ť | 4711 | | | | | | | | | | | | | | | | | 271 | | | 1903 | 4711 | 204 | 10000 | | | SUBGRADE COMPACTION |
| + | 3 | | | | | | | | 1 | | | | | | | | | | | | 1 | 3 | 204 | 45000 | 4 | HOUR | PROOF ROLLING |
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| + | | | | | | | LUMP | | - | | | | | | | | + | | | | | LUMP | 606 | 98200 | LUMP | | GUARDRAIL, MISC.: REMOVE AND REERECT POSTS |
| + | | | | | | | 13065 | | | - | - | - | | | | | | | | | 2260 | 10805 | 608 | 10000 | 0.0000000000000000000000000000000000000 | SQ FT | 4" CONCRETE WALK |
| 1 | | | | | | | | | - | | | <u> </u> | | | | | | | | + | 358 | 1686 | 608 | 21000 | | | 4" ASPHALT CONCRETE WALK |
| 1 | | | | | | | 2044 | | | | | | | | _ | | | | | | | | _ | 52010 | | | CURB RAMP, TYPE A1 |
| | | | | | | | 9 | | | | ļ | | | | | | | | | | 7 | 2 | 608 | | | | CURB RAMP, TYPE B2 |
| | | | | | | | 1 | | | | | | | | | | | | | | | | 608 | 52040 | | EACH | |
| | | | LUMP | | | | | | | | | | | | | | | | | | 39% | 61% | SPECIAL | 69098400 | LUMP | | PRECONSTRUCTION VIDEO TAPING, AS PER PLAN |
| T | | | | | | | | | | | | | | | | | | | | | | | | | | | EROCION CONTROL |
| T | | | | | | | S. | | | | | | | | | | | | | | | | | | | | EROSION CONTROL |
| | | | 2 | | | | | | | | | | | | | | | | | | 1 | 1 | 659 | 00100 | | | SOIL ANALYSIS TEST |
| 1 | | | 431 | | | | | | | | | | | | | | | | | | 101 | 330 | 659 | 00300 | | | TOPSOIL |
| + | | | 3879 | . 540. | | | | | | | | | | | | | | | | | 907 | 2972 | 659 | 10000 | | | SEEDING AND MULCHING |
| + | | | 194 | | | | | | | | | | | | | | | | | | 45 | 149 | 659 | 14000 | 194 | SQ YD | REPAIR SEEDING AND MULCHING |
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| + | | | 0.07 | | | | | | | | | | | | | | | | | | 0.20 | 0.67 | 659 | 20000 | 0.87 | TON | COMMERCIAL FERTILIZER |
| 4 | | | 0.87 | | | | | - | | | | | | | | | - | | | | 0.19 | 0.61 | 659 | 31000 | 0.80 | | LIME |
| 4 | | | 0.80 | | | | | | - | - | | | - | | | | | | 20 - V | | 7 | 24 | 659 | 35000 | | | WATER |
| 1 | | | 31 | | | | | | | | | - | | | | | | | | EACH | 39% | 61% | 832 | 30000 | EACH | 10/10 | EROSION CONTROL (SUPPLEMENTAL SPEC 823) |
| 1 | | | | | | | | | | | - | | | | | | | | - | EACH | 33% | 01% | 032 | 30000 | - DAGIT | | EKOSION OONINGE (SOFFICEMENTING PLOS 8ES) |
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| | | | | | | | | | | | | | | | | | | | | | | | | | 0.75 | 011.1/0 | |
| | | | | | | | | 0.75 | | | | | | | | | | | L | | 0.21 | 0.54 | 602 | | | | CONCRETE MASONRY |
| | | | | | | | | | | | | | | | | | | | 36 | | | 36 | 602 | 98200 | | | MASONRY, MISC.: SIDEWALK/HEADWALL |
| + | | | | 100 | | | | | | | | | | | | | | | | | | 100 | 603 | 00100 | 100 | | 4" CONDUIT, TYPE B |
| - | | | | 100 | | | | | | | | | | | | | | | | | | 100 | 603 | 00200 | 100 | FT | 4" CONDUIT, TYPE C |
| - | | | | | | | | | 220 | | 1 | | | | | | | | | | 70 | 150 | 603 | 00410 | 220 | FT | 4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLET |
| + | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| + | - | | | 100 | | | | | | | - | | | † | | | | | | | | 100 | 603 | 00900 | 100 | FT | 6" CONDUIT, TYPE B |
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| 4 | | | | 100 | | | | 001 | - | - | | | - | - | | - | | | | 1 | 131 | 70 | 603 | 04400 | 201 | | 12" CONDUIT, TYPE B 707.33 |
| | | | | | | | | 201 | | | - | | - | - | | | | | | 1 | | | 603 | 04600 | 219 | | 12" CONDUIT, TYPE C 707.33 |
| | | | | | | | | 219 | ļ | | - | | - | ļ | | | | | | - | 79 | 140 | | 07400 | 48 | | |
| | | | | | | | | 48 | ļ | | - | | | <u> </u> | | | | | | | <u></u> | 48 | 603 | 07400 | 40 | r i | 18" CONDUIT, TYPE B 7 • 7.33 |
| 1 | | | | | | | | | | | 1 | | | | | | | | | 1 | | | | 07000 | | <i></i> | 18" CONDUIT TYPE C 42 |
| | | | | | | | | 30 | | | | | | | | | | | | - | | 30 | 603 | 07600 | 30 | | 18" CONDUIT, TYPE C 707.33 |
| | | | | | | | | 188 | | | | | | | | | | | | | 188 | | 603 | 10400 | 188 | | 24" CONDUIT, TYPE B 707. 33 |
| 1 | | | | | | | | 13 | | | | | | | | | | | | | 5 | 8 | 603 | 10600 | 13 | | 24" CONDUIT, TYPE C 707.33 |
| 1 | | | | | | | | 1 | | | | | | | | | | | | | 1 | | 604 | 00801 | | | CATCH BASIN, NO. 3A, AS PER PLAN |
| - | | | | | | 32.526.96 | | 1 | | | | | | | | | | | | | | 1 | 604 | 04500 | 1 | EACH | CATCH BASIN, NO. 2-2B |
| | | | | | | | | 1 | | | | | T | | | | | | | | | 1000 | | | | | |
| | | | | | | | | 16 | | | 1 | | | | | | | | | | 6 | 10 | 604 | 08600 | 16 | EACH | CATCH BASIN, MISC.: CITY STD. DWG. #2 |
| | - | | | | | - | | 4 | + | + | | | t | | | | | | | | 1 | 3 | 604 | 31500 | 4 | EACH | MANHOLE, NO. 3 |
| | - | | | | - | - | | 5 | - | | | | 1 | | | | | | | | 3 | 2 | 604 | 31501 | | | MANHOLE ADJUSTED TO GRADE, AS PER PLAN |
| | 1 | | | 4555 | | - | | 1 3 | - | - | | | 1 | | 1 | | | | | - | | | - | 60450000 | | | SPECIAL - MISCELLANEOUS METAL |
| | | | | 1000 | | 1 | | | | 1 | | | | - | - | | | | | - | | | | | 3082 | | 4" SHALLOW PIPE UNDERDRAINS WITH FABRIC WRAP, 707.33 |
| | | | | | | | | | | | | | | | | | | | | or i | | | | | | | 14 SHALLOW PIPE UNDERDRAINS WITH PARKIT WRAP 707.3.3 |
| | | | | | | | | | 3082 567 | | | | | | | | | | | - | 853 114 | 2229 453 | 605 605 | 05110 05210 | 567 | | 4" UNCLASSIFIED PIPE UNDERDRAINS WITH FABRIC WRAP, 707.33 |

MBM CHECKED W.C

GENERAL SUMMARY

FULTON ROAD / PARK DRIVE INTERSECTION IMPROVEMENT

 6

 53

| OFFI | CE CAL | LCS | | | | | | SHEE | T NUI | MBER | | | | | | | | | Т | PA | RTICIP | PATION | | ITEM | CPAND | | | S |
|----------|---------------|-----|----------|---|----------|----|-----|------|-------|----------|------|----|--------------|---------|-------|---|---|---|----------|-----|--------|--------|------|--------------------|--------------------------|----------------------|--|---|
| ED | LOCAL | | 3 | 4 | 10 | | 27 | | 40 | 41 | 42 | 47 | 49 | | 50 | | | | | FED | RAL | LOCAL | ITEM | EXT. | GRAND TOTAL | UNIT | DESCRIPTION | SH |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | PAVEMENT | |
| | | | | | | | | | | | | | - | | | | | | | 7 | 25 | | 254 | 01000 | 725 | SO VD | PAVEMENT PLANING, ASPHALT CONCRETE | + |
| 25 | | | | | | | | | | | | | | | | | | | | | | 470 | | 343000 A 100 A 101 | | | ASPHALT CONCRETE BASE, PG64-22 | + |
| 65 | 472 | | 6 | | | | | | | | | | <u> </u> | | | | | | | | 71 | 472 | 301 | 46000 | and the same of the same | | | _ |
| 82 | 838 | | | | | | 40 | | | | | | <u> </u> | | | | | | | | 22 | 838 | 304 | 20001 | | | AGGREGATE BASE, AS PER PLAN | |
| 41 | 849 | | | | | | | | | | | | | | | | | | | | 11 | 849 | 407 | 10000 | | | TACK COAT | |
| 21 | 425 | | | | | | | | | | | | | | | | | | | 2 | 21 | 425 | 407 | 14000 | 646 | GALLON | TACK COAT FOR INTERMEDIATE COURSE | + |
| 0.5 | 0057 | | _ | | | | 33 | | | | | | | | | | | | | 8 | 8 | 2253 | 408 | 10000 | 3071 | GALLON | PRIME COAT | |
| | 2253 | | | | | | 33 | - 1 | | | | | | | | | | | 90-770-3 | | 2 | 177 | 448 | 46050 | | | ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 | + |
| 2 | 177 | | | | | | | | | | | | | | | | | | | | 2 | 118 | 448 | 47020 | | | ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 | |
| 2 | 118 | | | | | | | | | | | | | | | | | | | | , | 110 | 448 | 48020 | | | ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS) | + |
| | | | | | | | 7 | | | | | | | | | | | | | | 7 | | 452 | 12000 | | | 8" NON-REINFORCED CONCRETE PAVEMENT | + |
| | | | | | | | 147 | | ļ | | | | | | | | | | | | - | | 432 | 12000 | 147 | 30 10 | B NON-REINFORCED CONCRETE FAVEMENT | + |
| - | | | - | | 3537 | | 141 | | | | | | | | | | | | | 10 | 77 | 2601 | 609 | 26000 | 3678 | FT | CURB, TYPE 6 | + |
| | - | | | | 3337 | | 141 | | | | | | | | | | - | | 1 | | | | | | | | | 1 |
| + | | | | - | | | | | | | | | | 0.00 | | | | | | | | | | | | | WATER WORK | |
| \dashv | | | - | | 6 | | | | | | | | | - | | | | | | | į. | 2 | 638 | 10801 | 6 | EACH | WATER VALVE ADJUSTED TO GRADE, AS PER PLAN | |
| + | | | - | | | | | | | | 11 | | | | - | | | | | | | | | | | | | |
| + | | | | | | | | | | | | | | | | | | | | | | | | | | | SANITARY SEWER | |
| \dashv | | | | | 1 | | | | | | | | | | | | | | | | | | 604 | 34501 | 1 | EACH | MANHOLE ADJUSTED TO GRADE, AS PER PLAN | |
| 1 | | | - | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | TRAFFIC CONTROL | |
| | | | | | 4 | | | | | | | | | | | | | | | | ı | | 626 | 13100 | 4 | EACH | BARRIER REFLECTOR, TYPE A | |
| + | | | | - | | | | - | 236 | 149 | | | | | | | | | | 1 | 57 | 218 | 630 | 03100 | 385 | FT | GROUND MOUNTED SUPPORT, NO. 3 POST | |
| + | | | | | | | | | 2 | | | | | | | | | | | | ? | | 630 | 79500 | 2 | EACH | SIGN SUPPORT ASSEMBLY, POLE MOUNTED | |
| + | | | | | | | | | 73 | 71 | | | | | | | | | | 8 | .4 | 57.6 | 630 | 80100 | 144 | SQ FT | SIGN, FLAT SHEET | |
| + | | | - | | | | | | 2 | 2 | | | | | | | | | | | | | 630 | 80500 | 4 | EACH | SIGN, DOUBLE FACED, STREET NAME | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | 21 | 11 | | | | | | | | | | | 2 | 21 | 630 | 84900 | 33 | EACH | REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL | |
| + | | | | | | | | | 2 | | | | | | | | | | | | | 2 | 630 | 85100 | 2 | EACH | REMOVAL OF GROUND MOUNTED SIGN AND REERECTION | |
| + | | | | | | | | | 10 | 5 | | | | | | | | | | | 5 | 10 | 630 | 86002 | 15 | EACH | REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL | T |
| + | | | | | | | | | 70 | - | 0.01 | | | | | | | | | 0 | 01 | | 642 | 00202 | | | LANE LINE, TYPE 2 | |
| + | | | | - | | -+ | | | | | 0.25 | | | | | | | | | 0. | | | 642 | 00302 | | | CENTER LINE, TYPE 2 | |
| + | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | | | | | | | | | | | 214 | | | | | | | | | 2 | 4 | | 642 | 00402 | 214 | FΓ | CHANNELIZING LINE, TYPE 2 | |
| \dashv | | | | | | | | | | | 152 | | | | | | | | | 1 | 2 | | 642 | 00502 | 152 | FT | STOP LINE, TYPE 2 | |
| 1 | | | <u> </u> | | | | | | | | 530 | | | | | | | | | 5 | 50 | | 642 | 00602 | 530 | FT | CROSSWALK LINE, TYPE 2 | |
| + | | | - | | | | | | | i | 11 | | | | | | | | | | 1 | | | 01302 | 11 | EACH | LANE ARROW, TYPE 2 | \top |
| + | | | | | | -+ | | | | | | | | | | | | | | | | | | | | | | |
| - | | | | | | | | | | | | | | | | | | | | | | | | | | | LIGHTING | |
| - | | | | | | | | | | | | | | | 56 | | | | | | | 56 | 625 | 00500 | 56 | EACH | CONNECTOR KIT, TYPE II | |
| + | | | | | | | | | | | | | | | 28 | | | | | | | 28 | 625 | 00600 | 28 | EACH | CONNECTOR KIT, TYPE III | |
| + | | | | | | | - | | | | | | | | 14 | | | | | | | 14 | 625 | 10481 | 14 | EACH | LIGHT POLE, DECORATIVE, AS PER PLAN | |
| + | - | | | | | + | | | | | | | | | 14 | | | | | | | 14 | 625 | 14501 | | | LIGHT POLE FOUNDATION, AS PER PLAN | |
| - | | | - | | | | | | | | | | | | 19659 | | | | | 1: | 16 | 18543 | 625 | 23302 | 19659 | FT | NO. 6 AWG 5000 V DISTRIBUTION CABLE | |
| | | | - | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | | | † | | | | | | | | | | | | 2292 | | | | | | | 2292 | 625 | 25500 | 2292 | | CONDUIT, 3", 725.04 | |
| - | | | | | | | | | | | | | | | 177 | | | | | | i i | 177 | 625 | 25501 | 177 | | CONDUIT, 3", 725.04, AS PER PLAN | |
| - | | | | | | | | | | | | | | | 3 | | | | | | | | 625 | 26251 | 3 | | LUMINAIRE, CONVENTIONAL, AS PER PLAN | |
| | | | - | | | | | | | | | | | | 14 | | | | | | | 14 | 625 | 27401 | 14 | EACH | LUMINAIRE, TWIN, POST TOP, AS PER PLAN | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$ |
| | | - | | | | | | | | | | | | | 2292 | | | | | | 10 | 2292 | 625 | 29000 | 2292 | FT | TRENCH | \bot |
| | | | | | | | | | | | | | | | | | | | | | | | | 770- 4-00- | | | | |
| | | | | | | | | | | | | | | | 177 | | | | | | | 177 | 625 | 29401 | 177 | King Street, Art 188 | TRENCH IN PAVED AREAS, AS PER PLAN | |
| | | | | | | | | | | | | | | | 8 | | | | | | | 8 | 625 | 30706 | | | PULL BOX, 725.08, 24" | _ |
| | | | | | | | | | | | | | 2 | | | | | | | | ? | | 625 | 31507 | | | PULL BOX REMOVED AND REPLACED, AS PER PLAN | \bot |
| | | | | | | | | | | | | | | | 14 | | | | | | | 14 | 625 | 32000 | | | GROUND ROD, AS PER PLAN | + |
| | | | | | | | | | | | | | | | 1 | | | | | 3 | 7% | 61% | 625 | 34001 | 1 | EACH | POWER SERVICE, AS PER PLAN | + |
| | | | | | | | | | | | | | | | | | | | | | | | 005 | 74644 | | 54611 | DOWER CERVICE RECURRICUES AS RES SLAN | + |
| | | | | | | | | | | | | | 1 | | | | | | | | | 0000 | 625 | 34011 | | - | POWER SERVICE REFURBISHED, AS PER PLAN | + |
| | | | | | | | | | | | | | | | 2292 | | | | | | | 2292 | 625 | 36000 | 2292 | FF | PLASTIC CAUTION TAPE | + |
| | . 1 | | 1 | | | | | | | | | | | | | | | | | | | | | | | \vdash | | + |
| | | | | | 1 | 1 | | | | 1 | 1 | 1 | 1 | I | 1 | 1 | | 2 | | 1 | | | | | | 1 1 | | |
| _ | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |

FULTON ROAD / PARK DRIVE INTERSECTION IMPROVEMENT

GENERAL SUMMARY

| | | SHEET NUMBER | ₹ | | | PARTIC | IPATION | | 05.4115 | | | SEE |
|-----------|------|--|---|------|--|---|--|--|--|-------------------------|--|--|
| 5 30 | 47 | SITELY WOMBEN | | | | | | EM ITEM EXT. | GRAND TOTAL | UNIT | DESCRIPTION | SHEET NUMBER |
| | | | | | | | | | - | | TRAFFIC SIGNALS | |
| | | | | | | | | 05 05407 | 110 | _ | CONDUIT, 2", 725.05, AS PER PLAN | 31 |
| | 660 | | | | | 660 | | 25 25403 | 660 | | CONDUIT, 3", 725.05, AS PER PLAN CONDUIT, 3", 725.05, AS PER PLAN | 31 |
| | 322 | | | | - | 322 | - | 25 25503 | 322 | | TRENCH | |
| | 482 | | | | | 482 | | 25 29000 | 482 | | TRENCH IN PAVED AREAS, TYPE B, AS PER PLAN | 31 |
| | 217 | | | | | 217 | | 25 29601 | 217 | | PULL BOX, 725.06, 18" | 31 |
| | 3 | | | | | 3 | - 6 | 25 30702 | - 3 | EACH | FULL BOX, 723.00, 10 | |
| | | | | | | | | 70700 | + | EACH | PULL BOX, 725.06, 24" | 31 |
| | 1 | | | | | 1 - 1 | | 25 30708 | | | GROUND ROD, AS METE PLAN | |
| | 5 | | | | | 5 | | 25 32000 25 32001 | | | GROUND ROD, AS PER PLAN | 31 |
| | 1 | | | | | 1 700 | | | | | PLASTIC CAUTION TAPE | 0, |
| | 708 | | | | | 708 | | 25 36000 | 700 | FACH | VEHICULAR SIGNAL HEAD (LED), 3 SECTION, 12" LENS, 1 WAY, | ł |
| | 7 | | | | | 7 | 6 | 32 05005 | | EAUT | POLYCARBONATE, AS PER PLAN | 31 |
| | | | | | | | | | <u> </u> | | FULTCARBUNATE, AS FER FLAN | |
| | | | | | ++ | | | 70 05005 | | FACIL | VEHICULAR SIGNAL HEAD (LED), 5 SECTION, 12" LENS, 1 WAY, | 2.122 |
| | 2 | | | | | 2 | 6 | 32 05085 | 1 - 2 | | POLYCARBONATE, AS PER PLAN | 31 |
| | | | | | | | | 70 00751 | | | PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, AS PER PLAN | 32 |
| | 8 | | | | | 8 | | 32 20721 | | | COVERING OF VEHICULAR SIGNAL HEAD | 1 32 |
| | 9 | | | | | 9 | | 32 25000 | | | | |
| | 8 | | | | | 8 | | 32 25010 | 8 | EACH | COVERING OF PEDESTRIAN SIGNAL HEAD | 32 |
| | 4 | | | | | 4 | 6 | 32 26001 | + 4 | EACH | PEDESTRIAN PUSHBUTTON, AS PER PLAN | JZ |
| | | | | | | | | 70 1 | | | CIONAL CARLE Z CONDUCTOR NO 14 AWG | |
| | 519 | and the second s | | | | 519 | | 32 40300 | 519 | | SIGNAL CABLE, 3 CONDUCTOR, NO. 14 AWG | |
| | 2035 | | | | | 2035 | | 32 40700 | 2035 | | SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG | 72 |
| | 183 | | | | | 183 | | 32 53203 | 183 | | INTERCONNECT CABLE, 6 PAIR, NO. 19 AWG, SOLID, REA (PE-39), AS PER PLAN | |
| | 3 | | | | | 3 | | 32 64011 | | | SIGNAL SUPPORT FOUNDATION, AS PER PLAN | 32 |
| | 2 | | | | | 2 | 6 | 32 64021 | 2 | EACH | PEDESTAL FOUNDATION, AS PER PLAN | 32 |
| | | | | | | | | | | | | 70 |
| | 10 | | | | | 10 | | 32 69300 | | | POWER CABLE, 3 CONDUCTOR, NO. 4 AWG | 32 |
| | 1 | | | | | 1 | | 32 70001 | 1 | EACH | POWER SERVICE, AS PER PLAN | 32 |
| | 2 | | | | | 2 | | 32 80700 | | | SIGNAL SUPPORT MISC.: NOSTALGIA SIGNAL SUPPORT - UNION METAL CORP. (ONE-ARM) | 32 |
| | 1 | | | | | 1 | | 32 80700 | | | SIGNAL SUPPORT MISC.: NOSTALGIA SIGNAL SUPPORT - UNION METAL CORP. (TWO-ARM) | 32 |
| | 1 | | | | | 1 | 6 | 32 90010 | 1 | EACH | PEDESTAL MISC.: NOSTALGIA PEDESTAL — UNION METAL CORP. (8') | 33 |
| | | | | | | | | | | | PEDESTAL MISC: NOSTALGIA PEDESTAL WITH LUMINAIRE NL318R — UNION METAL CORP. (18') | |
| | 1 | | | | | 1 | 6 | 32 90010 | | | | 33 |
| | LUMP | | | | | LUMP | | 32 90300 | LUMP | | SIGNALIZATION, MISC.: INTERCONNECT COORDINATION | 33 |
| | 1 | | | | | 1 | | 33 01581 | | | CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TS1, AS PER PLAN (8 PHASE) | 33 |
| | 1 | | | | | 1 | | 33 67100 | | | CABINET FOUNDATION | |
| | 1 | | | | | 1 | 6 | 67200 | 1 | EACH | CONTROLLER WORK PAD | |
| | | | | | | | | | | | | |
| | 2 | | | | | 2 | | 33 99000 | | | CONTROLLER, MISC.: PREEMPTION | 34 |
| | 7 | | | | | 7 | | 33 99000 | to the same of the | | CONTROLLER, MISC.: PREEMPTION RECEIVING UNIT | 34 |
| | 2 | | | | | 2 | 6 | 33 99000 | 2 | | CONTROLLER, MISC.: PREEMPT PHASE SELECTOR | 34 |
| | | 1 1 | | | | 510000000000000000000000000000000000000 | | | 1079 | | CONTROLLER, MISC.: PREEMPTION DETECTOR CABLE | 1 77 |
| | | | | | and the same of th | 1079 | 6 | 33 99100 | | | VIDEO DETECTION SYSTEM, AS PER PLAN | 33 |
| | 1079 | | | | | 1079 | | 333 99100 316 30001 | | EACH | VIDEO DETECTION STATEM, NO FER FEM. | 34 |
| | | | | | | | | | | EACH | | |
| | 1079 | | | | | | | | 4 | | RETAINING WALLS | 34 |
| 1075 | 1079 | | | | | | | | 4 | | | |
| 1035 | 1079 | | | | | | | 316 30001 | 4 | | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL | 34 |
| 1035 | 1079 | | | | | | | 316 30001 | 0 1035 | SQ FT | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES | 34 |
| | 1079 | | | | | | 1035 SP | 316 30001 | 0 1035 | SQ FT | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES 3/4" PREFORMED EXPANSION JOINT FILLER | 34 |
| 36 | 1079 | | | | | | 1035 SP. | 30001 ECIAL 610E500 | 0 1035 | SQ FT | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES | 34 |
| | 1079 | | | | | | 1035 SP. | ECIAL 610E500 | 0 1035 | SQ FT | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES 3/4" PREFORMED EXPANSION JOINT FILLER RAILING (TWIN STEEL TUBE) AS PER PLAN | 34 |
| 36 | 1079 | | | | | | 1035 SP. | ECIAL 610E500 | 4 0 1035 36 109 | SQ FT SQ FT | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES 3/4" PREFORMED EXPANSION JOINT FILLER RAILING (TWIN STEEL TUBE) AS PER PLAN MAINTENANCE OF TRAFFIC | 34 |
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| 36 109 | 1079 | | | | | 4 | 1035 SP. 36 5 | ECIAL 610E500 516 13400 517 70001 | 4 0 1035 36 109 | SQ FT SQ FT | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES 3/4" PREFORMED EXPANSION JOINT FILLER RAILING (TWIN STEEL TUBE) AS PER PLAN MAINTENANCE OF TRAFFIC | 34 |
| 36 109 | 1079 | | | | | 100 | 1035 SP. 36 5 | ECIAL 610E500 516 13400 517 70001 | 36 109 | SQ FT SQ FT | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES 3/4" PREFORMED EXPANSION JOINT FILLER RAILING (TWIN STEEL TUBE) AS PER PLAN MAINTENANCE OF TRAFFIC LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DETOUR SIGNING | 34 |
| 36 109 | 1079 | | | | | 100 | 1035 SP. 36 5 | ECIAL 610E500 516 13400 517 70001 | 36 109 | SQ FT SQ FT | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES 3/4" PREFORMED EXPANSION JOINT FILLER RAILING (TWIN STEEL TUBE) AS PER PLAN MAINTENANCE OF TRAFFIC LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE | 34 |
| 36 109 | 1079 | | | | | 100 39% | 1035 SP. 36 5 109 5 | ECIAL 610E500 516 13400 517 70001 514 11110 514 12420 | 36 109 | SQ FT SQ FT | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES 3/4" PREFORMED EXPANSION JOINT FILLER RAILING (TWIN STEEL TUBE) AS PER PLAN MAINTENANCE OF TRAFFIC LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DETOUR SIGNING | 30 |
| 36 109 | 1079 | | | | | 100 39% | 1035 SP. 36 5 109 5 61% 6 | ECIAL 610E500 516 13400 517 70001 514 11110 514 12420 | 36 109 100 LUMP | SQ FT SQ FT FT HOURS | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES 3/4" PREFORMED EXPANSION JOINT FILLER RAILING (TWIN STEEL TUBE) AS PER PLAN MAINTENANCE OF TRAFFIC LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DETOUR SIGNING INCIDENTALS | 34 |
| 36 109 | 1079 | | | | | 100 39% 39% 2.4 | 1035 SP. 36 5 109 5 61% 6 61% 6 3.6 6 | ECIAL 610E500 516 13400 517 70001 514 11110 514 12420 514 11000 519 16010 | 36 109 100 LUMP LUMP 6 | SQ FT SQ FT FT HOURS | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES 3/4" PREFORMED EXPANSION JOINT FILLER RAILING (TWIN STEEL TUBE) AS PER PLAN MAINTENANCE OF TRAFFIC LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DETOUR SIGNING INCIDENTALS MAINTAINING TRAFFIC | 34 |
| 36 109 | 1079 | | | | | 100 39% 39% 2.4 39% | 1035 SP. 36 5 109 5 61% 6 61% 6 61% 6 61% 6 | ECIAL 610E500 516 13400 517 70001 514 11110 514 12420 514 11000 519 16010 523 10000 | 100 1035 36 109 100 LUMP LUMP 6 LUMP | SQ FT SQ FT FT HOURS | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES 3/4" PREFORMED EXPANSION JOINT FILLER RAILING (TWIN STEEL TUBE) AS PER PLAN MAINTENANCE OF TRAFFIC LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DETOUR SIGNING INCIDENTALS MAINTAINING TRAFFIC FIELD OFFICE, TYPE B | 34 |
| 36 109 | 1079 | | | | | 100 39% 39% 2.4 | 1035 SP. 36 5 109 5 61% 6 61% 6 61% 6 61% 6 | ECIAL 610E500 516 13400 517 70001 514 11110 514 12420 514 11000 519 16010 | 36 109 100 LUMP LUMP 6 | SQ FT SQ FT FT HOURS | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES 3/4" PREFORMED EXPANSION JOINT FILLER RAILING (TWIN STEEL TUBE) AS PER PLAN MAINTENANCE OF TRAFFIC LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DETOUR SIGNING INCIDENTALS MAINTAINING TRAFFIC FIELD OFFICE, TYPE B CONSTRUCTION LAYOUT STAKES | 34 |
| 36 109 | 1079 | | | | | 100 39% 39% 2.4 39% | 1035 SP. 36 5 109 5 61% 6 61% 6 61% 6 61% 6 | ECIAL 610E500 516 13400 517 70001 514 11110 514 12420 514 11000 519 16010 523 10000 | 100 1035 36 109 100 LUMP LUMP 6 LUMP | SQ FT SQ FT FT HOURS | RETAINING WALLS RETAINING WALL, MISC.: MODULAR BLOCK WALL STRUCTURES 3/4" PREFORMED EXPANSION JOINT FILLER RAILING (TWIN STEEL TUBE) AS PER PLAN MAINTENANCE OF TRAFFIC LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DETOUR SIGNING INCIDENTALS MAINTAINING TRAFFIC FIELD OFFICE, TYPE B CONSTRUCTION LAYOUT STAKES | 34 |

FULTON ROAD / PARK DRIVE INTERSECTION IMPROVEMENT

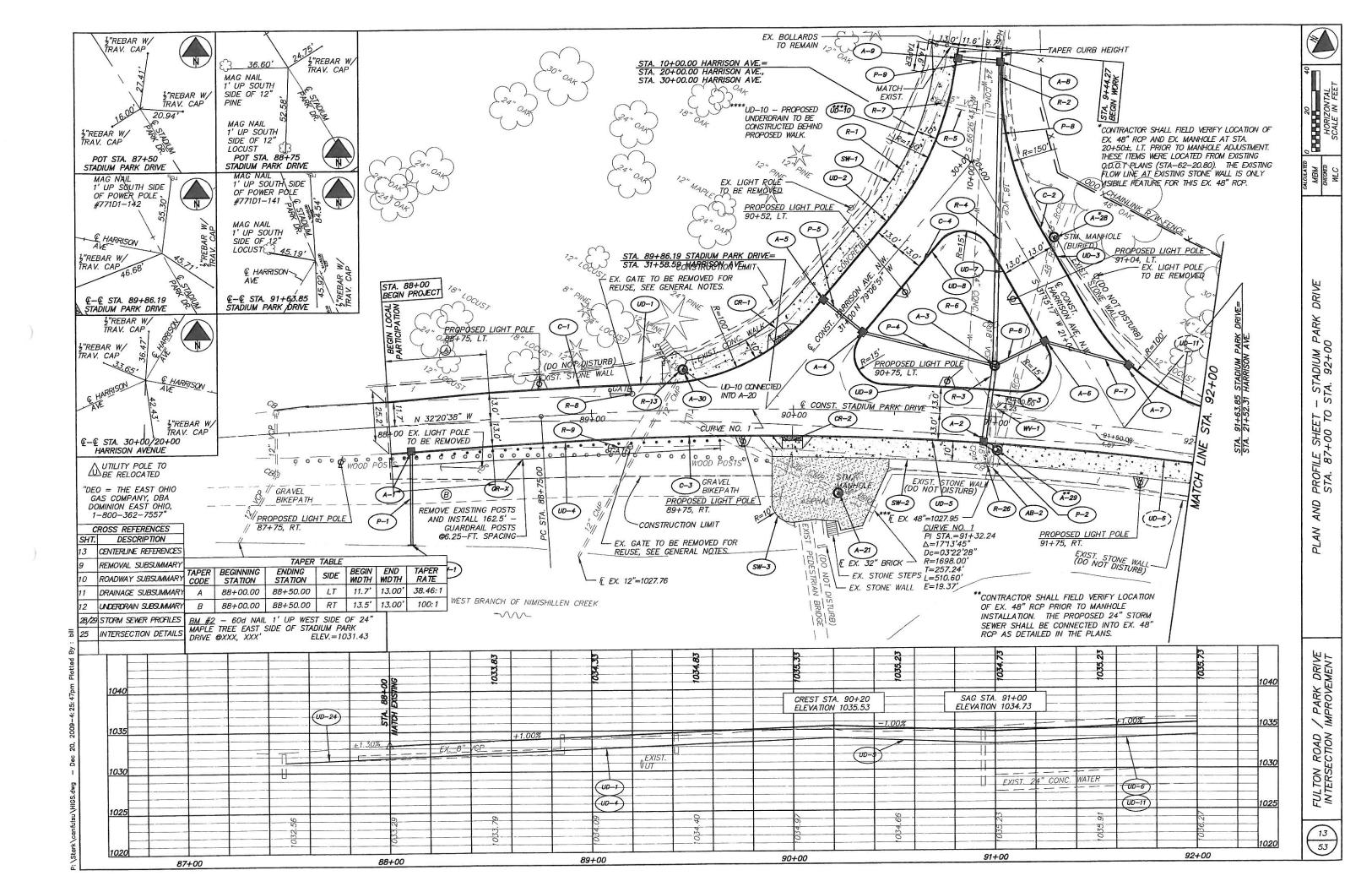
GENERAL SUMMARY

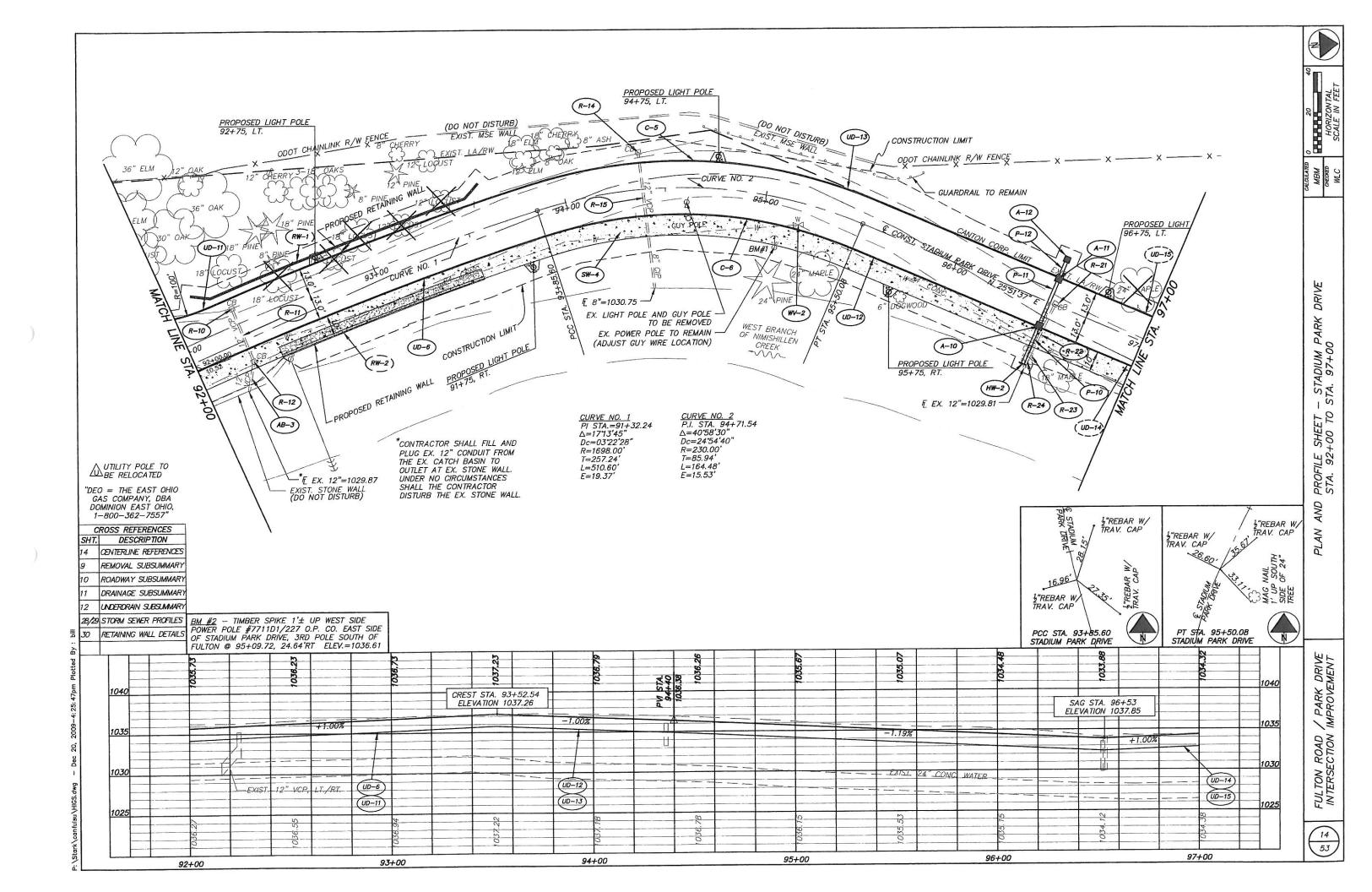
| П | | | | | | 202 | 202 | 202 | 202 | 202 | 202 | 202 | | - | | | | | | | | | | | | | | | MBM CHECKED |
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| SHEET NO. | REFERENCE NO. | | STATIC | | Louis | WALK REMOVED | CURB REMOVED | PIPE REMOVED, | GUARDRAIL REMOVED | CATCH BASIN REMOVED | SPECIAL—FILL AND PLUG | REMOVAL MISC.: REMOVE RAND REFRECT GATE | | | | | | | | | | | | | | | | | W Onco |
| 15 | 40.1 | FROM 99+72 | SIDE LT | TO 200+14 | LT | SQ. FT. | FT. | 77. | , ,, | LAGIT | 39 | Z/tor/ | | | | | | | | | | | | | | | | | |
| 15 | AB-1 AB-2 | 90+97 | RT | 91+01 | RT | | | <u> </u> | | | 3 | | | | | | | | | | | | | | | | | | |
| 14 | AB-3 | 92+28 | RT | 92+19 | RT | | | | | | 15 | | | | | | | | | | | | | | | | | | 4 |
| 15 | AB-4 | 29+48 | LT | 29+55 | LT | | | | | | 11 | | | | | | | | | | | | | _ | | | | - | 4 |
| | | | | | | | | | | | | | _ | | | | | | | | | | - Wasal | | | 1 | | - | 4 |
| 13 | R-1 | 89+36 | LT | 9+44 | RT | 2660 | | | | | | | | | | - | | | - | | | | - | | | - | | | 1 |
| 13 | R-2 | 9+44 | LT | 9+86 | LT | | 44 | C.F. | | | | | | + | - | | | | | | | 1 | - | | | | | | 5 |
| 13 | R-3 | 90+97 | LT | 90+97 | RT | | | 65 103 | | | | | | | | | | 1 | | | | | | | | | | | ITEMS |
| 13 | R-4 R-5 | 9+77 9+73 | LT RT | 90+97 9+77 | LT LT | | | 31 | | | | | | | | | | | | | | | | | | | | | _ |
| 13 | R-6 | 90+97 | LT | 3177 | | | | | | 1 | | | 1 | | | | | | | | | | | | | | | | REMOVAL |
| 13 | R-7 | 9+73 | RT | <u> </u> | | | | | | 1 | | | | | | | | | | | | | | | | | | | 9 |
| 13 | R-8 | 89+21 | LT | | | | | | | | | 1 | | | | | | | | | | | | - | | | | | |
| 13 | R-9 | 89+19 | RT | | | | | | | | | 1 | | | | | | | | | | | | | | | | | - & |
| 14 | R-10 | 92+28 | LT | | | | | | | 1 | | | | | | | | | | | | - | | - | | | | | 4 ! |
| 14 | R-11 | 92+28 | LT | 92+28 | RT | | | 29 | | | | | | | | | | | | - | | | | + | | | | | ₩ ₩ |
| 14 | R-12 | 92+28 | RT | | | | | | | 1 | ļ | | | | | | - | | | - | | | | - | | | | | - AN |
| 14 | R-12 | 201+08.0 | LT | | | - | | | | | | - | - | + | | | | - | + | | | | - | - | | | | - | - W |
| 13 | R-13 | 89+46 | LT | | | | | | | 1 | | | - | | + | | | | | | | | | | | 1 | | | 335 |
| 14 | R-14 | 94+38 | LT | 04149 | DT | | | 68 | | | | | + | 1 | | | | | | | | | | | | | | | SUBSUMMARY |
| 14 | R-15 | 94+38 | LT RT | 94+42 99+71 | RT RT | | 22 | - 00 | | | | | <u> </u> | | | 1 | | | | | | | | | | | | |] " |
| 15 15 | R-16 R-17 | 99+64 99+71 | LT | 99+83 | LT | | 77 | | | | † | | | | | | | | | | | | | | | | | |] |
| 15 | R-17 | 200+63 | LT | 200+78 | LT | | 93 | | | - | | | | | | | | | | | | | | | | | | 1 | |
| 15 | R-19 | 200+16 | RT | 200+29 | RT | | 38 | | | | | | | | | | | | | | | | | | | | | | 4 |
| 16 | R-20 | 202+43 | RT | 203+41 | RT | | | | 100 | | | | | | | | | | | | | | | | ļ | | - | | - |
| 14 | R-21 | 96+53 | LT | | | | | | | 1 | | | | | | | | | | | | L | | - | - | - | | | 4 |
| 14 | R-22 | 96+53 | LT | 96+52 | RT | | | 28 | | | | | | | | | | - | - | | <u> </u> | | | - | | 1 | - | | 4 |
| 14 | R-23 | 96+52 | RT | | | | | | | 1 | | - | | | | | - | | - | | | | | + | | | <u> </u> | - | 1 |
| 14 | R-24 | 96+52 | RT | 96+51 | RT | | | 7 | | | - | - | | - | - | | | + | | | | | | 1 | | | | | 1 |
| 15 | R-25 | 99+72 | LT | | | | | - | | 1 | - | - | - | - | - | | | | | | | | | | | | | | 1 |
| 13 | R-26 | 90+97 | RT LT | | | | | - | | 1 | | | | | | | | | | | | | | | | | | | 1 |
| 15 15 | R-27 R-28 | 29+48 29+05 | LT | 29+48 | LT | | | 52 | | | | | | | | | | | | | | | | | | | | |] |
| 15 | R-29 | 30+25 | LT | 201.10 | | | | | | 1 | | | | | | | | | | | | | | | | | | | 4 |
| 15 | R-30 | 30+25 | LT | 30+44 | LT | | | 23 | | | | | | | | | _ | | | | | | | | - | | | | 4 |
| . 15 | R-31 | 31+09 | RT | | | | | | | 1 | 200 | | | | - | | | | | | | | - | | | | | | + |
| 15 | R-32 | 31+09 | RT | 31+13 | RT | | | 4 | | | | | | - | | 1 | | | | - | | | | | - | - | | | 1 6/2 |
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| <u> </u> | TOTAL | LS CARRIED TO | GENERA | L SUMMARY | | 2660 | 274 | 410 | 100 | 13 | 68 | 2 | | | | | L | | | 1 | | | | | 1 | <u>I</u> | L | | \perp |

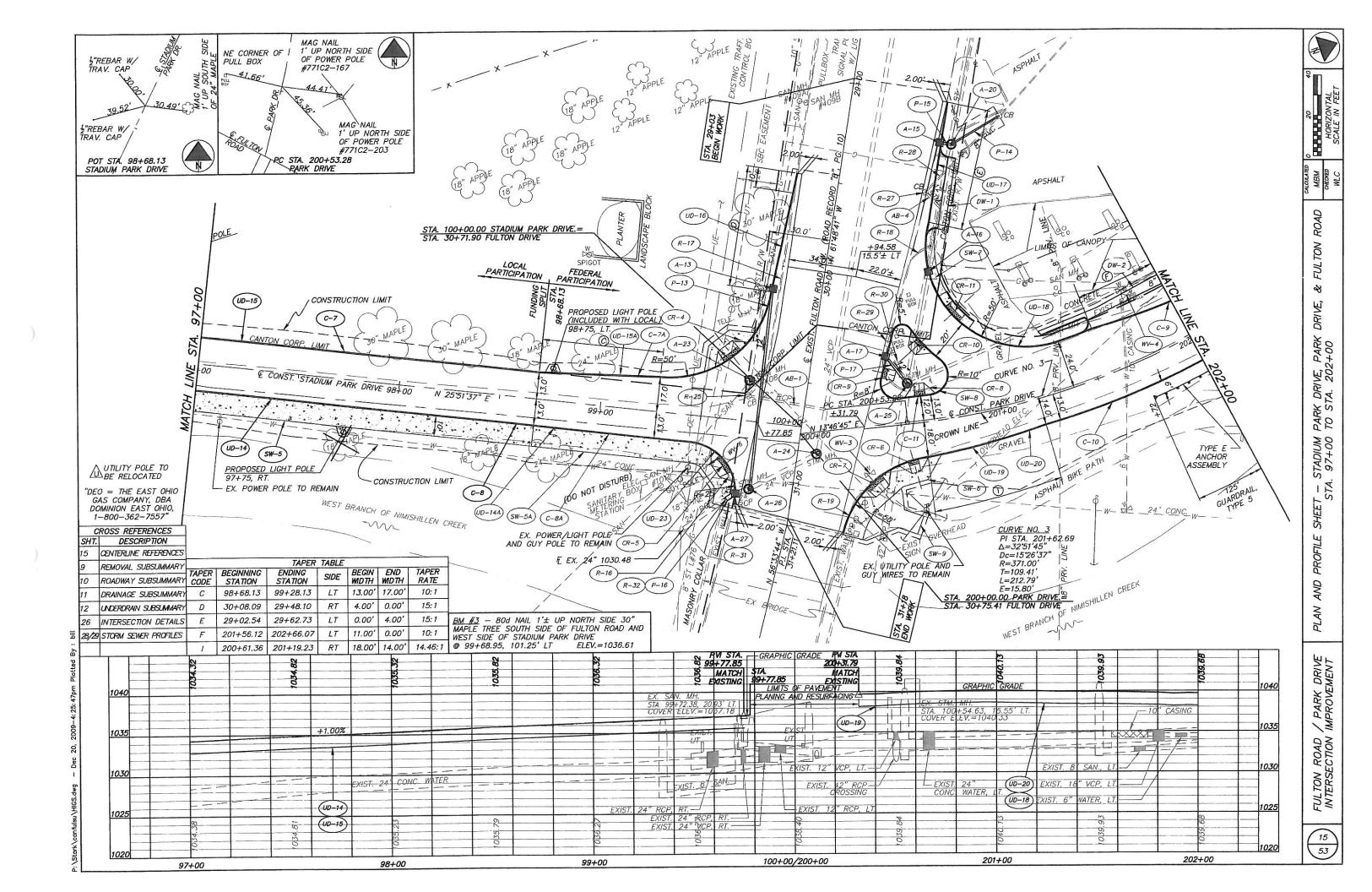
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| 13 SW-2 89+8.1 RT 82+00 RT | 13 | GR-X | 88+00 | RT | 89+87 | RT | | - | LUMP | | | - | - | | - | | | | | | | | + | | | | | |
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| 13 W/-1 91+00 LT | 0 | | | | | | | | | | 452 | | | | | | | | | | | | | | | | | DRI |
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| AL THIN STARRED IN GENERAL SUMMANT. IT I IZU LEUMIT I TUUUULZUTTI ULLI 1999'IL'IL'ILII | Stark | TOTAL | IS CAPPIED TO | | | | 1 | 125 | LUMP | 1 | | | | 1 | 3537 | 4 | 6 | | | | | | | | | | ķ | 10 |

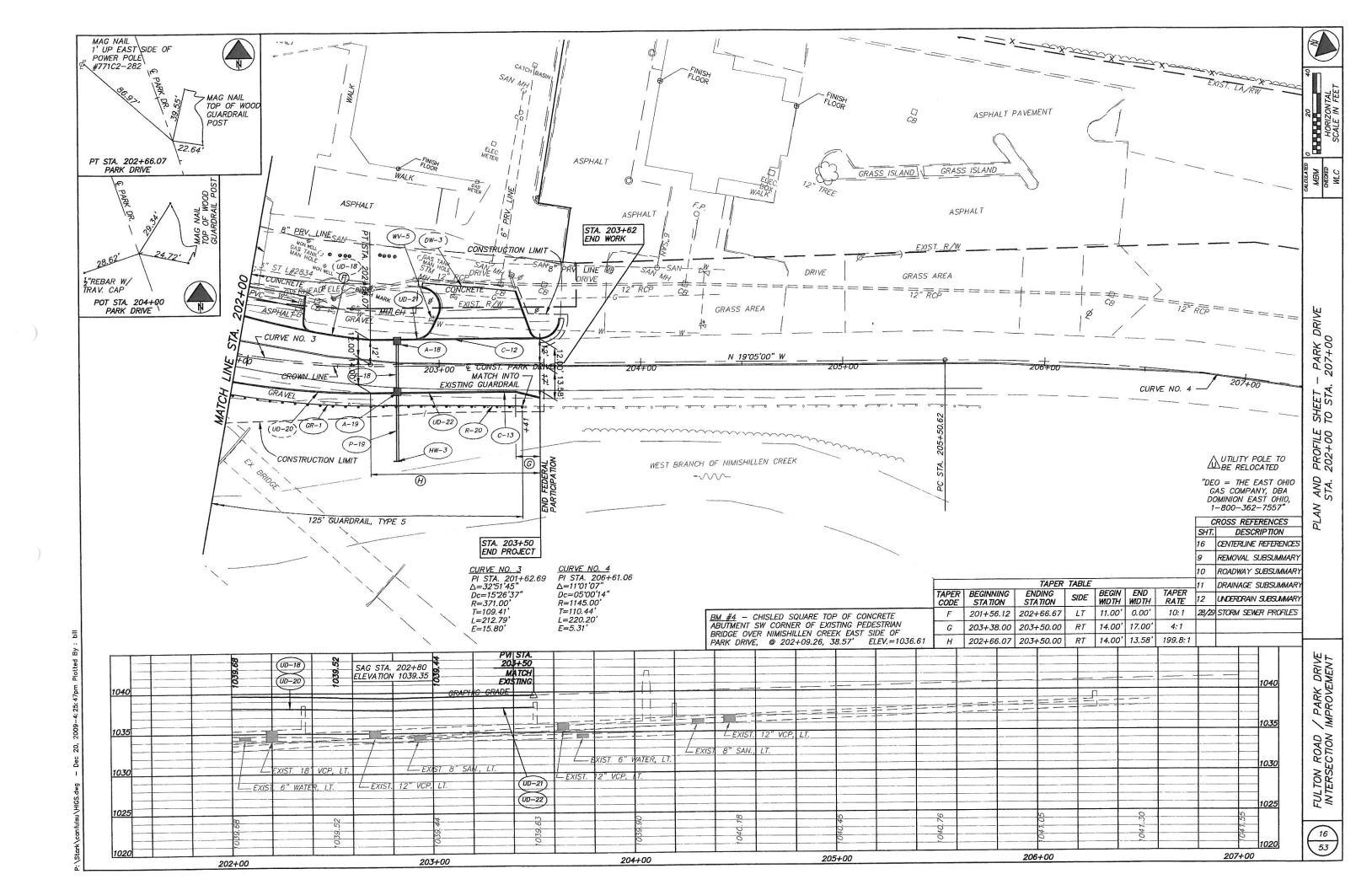
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| SHEET NO. | REFERENCE NO. | | STATIO | ON | | CONCRETE MASONRY | 12" CONDUIT, TYPE B | 12" CONDUIT, TYPE C | 18" CONDUIT, TYPE B | 18" CONDUIT, TYPE C | 24" CONDUIT, TYPE B | 24" CONDUIT, TYPE C | CATCH BASIN, NO. 3A, AS PER PLAN | CATCH BASIN, 2-2B | CATCH BASIN, MISC.: CITY STD. DWG. #2 | MANHOLE, NO. 3 | MANHOLE ADJUSTED TO GRADE, AS PER PLAN | | | | | | | a |
| | | FROM | SIDE | ТО | SIDE | CU. YD. | FT. | FT. | FT. | FT. | FT. | FT. | EACH | EACH | EACH 1 | EACH | EACH | | | | | | | |
| 13 | A-1 A-2 | 88+06.0 90+95 | RT RT | | + | | | | | | | | | | 1 | | | | | | | | | |
| 13 | A-3 | 90+97.7 | LT | | | | | | | | | | | | | 1 | | | | | | | | |
| 13 | A-4 | 90+33.2 | LT | | | | | | | | | | | | 1 1 | | | | | | | | | |
| 13 | A-5 | 90+13.3 | LT | | - | | | | | | | | | | 1 | | | | | | | | | |
| 13 | A-6 A-7 | 91+20.6 91+62.8 | LT LT | | + 1 | | | | - | | | | | | 1 | | | | | | | | | (0 |
| 13 | A-8 | 9+49.3 | LT | | | | | | | | | | | | 1 | | | | | | | | | ITEMS |
| 13 | A-9 | 9+49.3 | RT | | | | | | | | | | | | 1 | | | | | | | | | ITE |
| 14 | A-10 | 96+50 | RT LT | | - | | | | | | | - | | | 1 | | | | | | | | | GE |
| 14 | A-11 A-12 | 96+50 96+50 | LT | | 1 | | | | | | | | | 1 | | | | | | | | | | DRAINA |
| 15 | A-13 | 99+78.2 | LT | | | | | | | | | | | | 1 | | | | _ | | | | |)RA |
| 15 | A-15 | 201+00.4 | LT | | | | | | | | | - | 1 | | 1 | | | + + + + + | | | | | | 9 - |
| 16 | A-16 | 200+75.8 200+46.1 | LT | | - | | | | | | | | | | 1 | | | | | | | | | 7 |
| 16 16 | A-17 A-18 | 202+79.4 | LT | | | | | | | | | 1877 | | | 1 | | | | | | | | | AR |
| 16 | A-19 | 202+79.4 | RT | | | | | | | | | | | | 1 | | | | _ | | 1 | | | SUBSUMMAR |
| 15 | A-20 | 201+08.0 | LT | **** | | | | | | | | | | - | - | - ' | 1 | | | | | | | 350 |
| 13 | A-21 | 90+23.9 30+83.8 | RT. | | | | | | | | | | | | - | | 1 | | | | | | | SUE |
| 15 15 | A-24 A-25 | 200+55.4 | LT | | + | | | | | | | | | | | | 1 | | | | | | 8 | |
| 15 | A-26 | 31+06 | RT | | | | | | | | | | | | | | 1 | | | | | - | | |
| 15 | A-27 | 31+09 | RT | | | | | | | 1 | | - | | - | 1 | | 1 | | | | | | | |
| 13 | A-28 | 20+50± 91+05 | RT RT | | + | | | <u> </u> | | | | | + | | | 1 | 1 | | | | | | | |
| 13 | A-29 A-30 | 89+45.6 | LT | | + | | | - | | | | | | | | 1 | | | | | | | | |
| | | | | | | | | | | | | | | | | ļ | - | | | | | | | |
| 13 | P-1 | 88+10 | RT | 88+07.3 | RT | | | 46 | | | | 8 | - | | | | 1 | | - | | | | | |
| 13 | P-2 P-3 | 90+95 90+97.5 | RT LT | 91+02 90+95 | RT RT | | | | | | 38 | | - | | | | | | | | | | | |
| 13 | P-3 P-4 | 90+33.2 | LT | 90+97.5 | LT | | | 67 | | | | | | | | | | | | | | | | |
| 13 | P-5 | 90+13.3 | LT | 90+33.2 | LT | | 26 | | | | | | | | - | - | | | | | | | | |
| 13 | P-6 | 91+20.6 | LT | 90+97.5 | LT | | 44 | 27 | | | - | - | | - | | | - | | | | | | | |
| 13 ≡ 13 | P-7 P-8 | 91+62.8 9+49.3 | LT LT | 91+20.6 90+97.5 | LT LT | | 44 | | | - | 150 | | | † | | | | | | | | | | |
| 13 | P-9 | 9+49.3 | RT | 9+49.3 | LT | | | | 22 | | | | | | | | | | | | | | | |
| m 14 | P-10 | 96+50 | RT | 96+50 | RT | | | | | 20 | | | | | - | - | | ++ | | | | | | 名と |
| 14 | P-11 | 96+50 | LT | 96+50 | RT LT | | | | 26 | 10 | | - | - | | | 1 | | + + + | | | | | | EN |
| E 14 | P-12 P-13 | 96+50 99+78.7 | LT LT | 96+50 99+72.3 | LT | | 100 | | - | 10 | | <u> </u> | <u> </u> | | | | | | | | | | | A L |
| 6 15 6 15 | P-14 | 200+79.9 | LT | 200+85.3 | LT | | | 27 | | | | | | | | | | | | | | | | AR |
| 16 | P-15 | 202+79.4 | RT | 202+79.4 | RT | | 5 | | | | | - | | | - | - | | | | - | | | | / PARK DRIVE IMPROVEMENT |
| 15 | P-16 | 31+09 | RT | 31+13 | RT | | | 18 | - | | | 5 | | | | 1 | | | | | | | | 05 |
| 2 15 16 | P-17 P-18 | 200+46.1 202+79.4 | LT LT | 200+55.4 202+79.4 | LT RT | | 26 | 10 | | - | | 2000 | | | | | | | | | | | | 10A |
| 16 | P-18 P-19 | 202+79.4 | RT | 202+79.4 | RT | | | 34 | | | | | | | | | | | | | | | | FULTON ROAD INTERSECTION |
| Ď. | ,,,,, | 89,000 | RT | | - | 0.21 | | | | | 1 | - | | 1 | | | | + + + | | | | | | TO TER! |
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| 16 16 | HW-3 | 202+79.4 | RT | | | 0.21 | | | | | | | | | | | | | | | | | | |
| canfi | | | | L FEDERAL PARTICI | | 0.21 | 131 | 79 | 40 | 70 | 100 | 5 8 | 1 | 1 | 10 | 3 | 2 | | | | | | | 11 |
| Fd Fd | | | | TAL LOCAL PARTICI | PATION | 0.54 | 70 | 140 | 48 | 30 | 188 | | 1 | 1 | 16 | 4 | 5 | | | | | | | 53 |
| \$ | TOTAL | S CARRIED TO | GENER A | AL SUMMARY | | 0.75 | 201 | 219 | 48 | 30 | 188 | 13 | | 1 ' | 10 | | | | | | | | | |

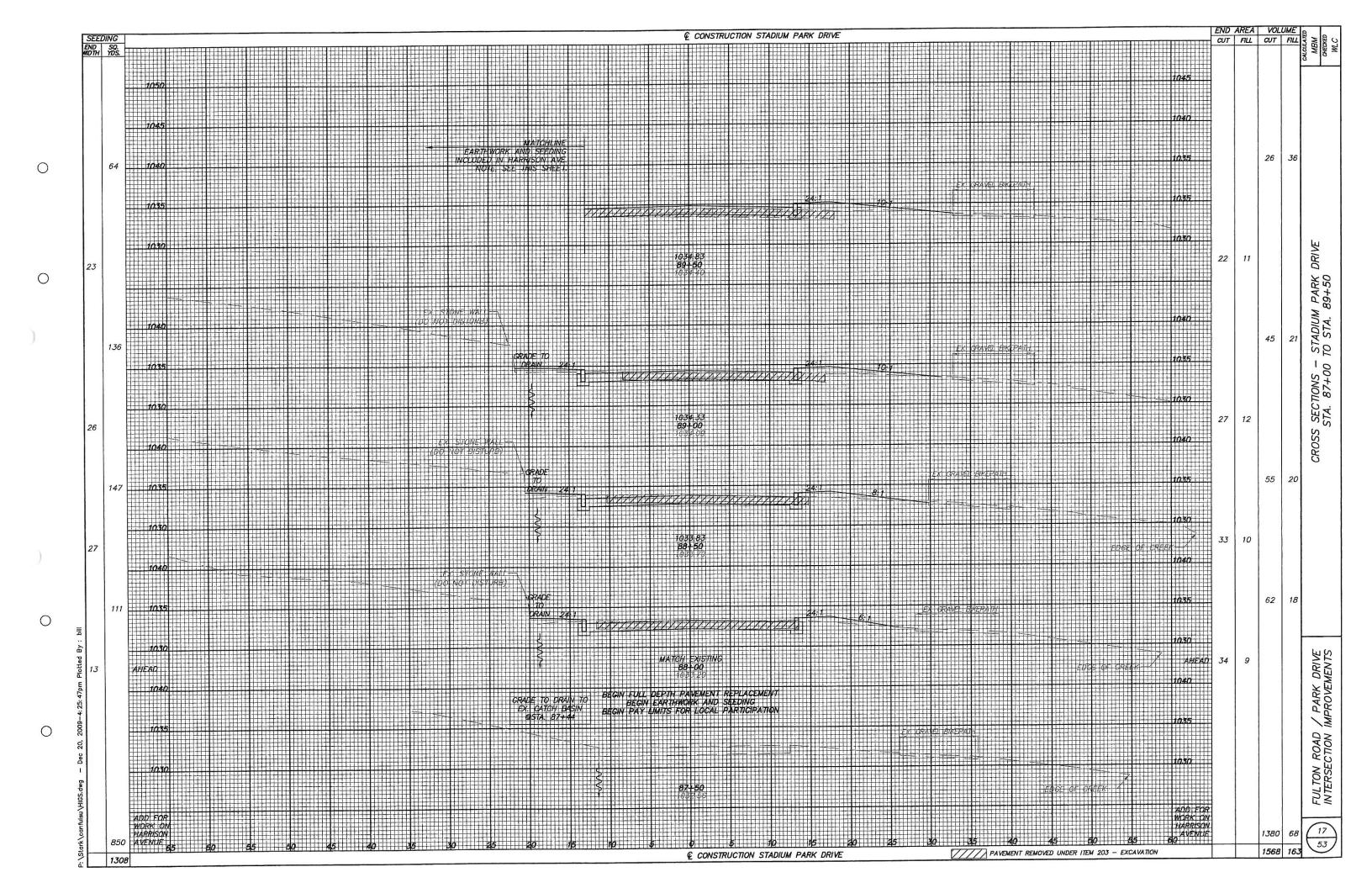
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| | | | | | - 555 | | | | ****** | | | | | | | | | | | | | | | | | | MBM CHECKED WLC |
| SHEET NO. | REFERENCE NO. | STATION OR | ? LOCATION | OUTLET/CONNECTION TO | 4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS | 4" SHALLOW PIPE UNDERDRAINS WTH FABRIC WRAP, 707.33 | 4" UNCLASSIFIED PIPE UNDERDRAINS WITH FABRIC WRAP, 707.33 | | | | | | | | | | | | | | | | | | | | 8 0 |
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| 13 | UD-1 | A-5 | 87+44.3 | EX. CB | 10 | 256 | | | | | | | | | | | | | | | | | - | | | | 1 |
| 13 | UD-2 | A-9 | A-5 | A-5 | 10 | 129 | | | | | | - | | | | | | | | | | | | | | | |
| 13 | UD-3 | A-8 | A-7 A-1 | A-7 A-1 | 10 | 157 200 | | | | | | 1 | | | | | | | | | | | | | | | |
| 13 | UD-4 UD-5 | 90+20 90+20 | A-2 | A-2 | 10 | 70 | | | | | | | | | | | | | | | | | | | | | 1 |
| 14 | UD-6 | 93+52.5 | A-2 | A-2 | 10 | 238 | | | | | | | | | | | | | | | | | | | | | 1 |
| 13 | UD-7 | UD-8 | A-6 | A-6 | 10 | | 59 | | | | | | | - | | | | - | | | | | | | | | |
| 13 | UD-8 | UD-7 | A-4 | A-4 | 10 | | 64 128 | | *** | | | | | | | | | | | | | | | | | | INS |
| 13 | UD-9 | A-4 | A-6 201+08.02 | A-6 A-20 | 10 | - | 202 | 1 | | | | | | | | | | | | | | | | | | | PA . |
| 13 | UD-10 UD-11 | 9+44.3 93+52.5 | A-7 | A-20 | 10 | 183 | | | | | | | | | | | | | | | | | | | | | UNDERDRAINS |
| 14 | UD-12 | 93+52.5 | A-10 | A-10 | 10 | 290 | | | | | | | | | | | | | ļ | | | | - | | \vdash | | IDE |
| 14 | UD-13 | 93+52.5 | A-11 | A-11 | 10 | 290 | | | | | <u> </u> | - | | | | | | - | | | | | | | | | ∫ ≲ |
| 15 | UD-14 | 98+68.1 | A-10 | A-10 | 10 | 208 | | | | - | | | | | | | | | | | | | | | | | 1 |
| 15 | UD-14A | | 98+68.1 | UD-14 A-11 | 10 | 78 208 | | + | | | | - | | | | | | | | | | | | | | | 4 |
| 15 15 | UD-15 UD-15A | | A-11 98+68.1 | UD-15 | 70 | 125 | | | | | - | | | | | | | | | | | | | | | | MA |
| 15 | UD-16 | | A-13 | A-13 | 10 | 50 | | | | | | | | | | | | | | | | | | | | | - W |
| 15 | UD-17 | | A-16 | A-16 | 10 | 55 | | | | | | | | - | | | | | | | | | | | | | SUBSUMMARY |
| 15 | UD-18 | | A-18 | A-18 | 10 | 209 | | | | | | | _ | | | | | | | | | | | | | | SU |
| 15 | UD-19 | | 200+61.4 | UD-20 | 10 | 176 | 90 | | | | | | + | | | | | | | | | | | | | | |
| 15 | UD-20 | | A-19 A-18 | A-19 A-18 | 10 | 176 85 | | | | | | | - | | | | | | | | | | | | | | |
| 16 16 | UD-21 UD-22 | | A-18 | A-19 | 10 | 75 | | | | | | | | | | | | | | | | | | | | | 4 |
| 15 | UD-23 | | 31+09 | UD-14 | 10 | | 24 | | | | | | | | | | | | | | | | | | | | - |
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| 20,2 | | | | | | | 1 | - | | | - | | | + | - | - | | | - | | | | | | | | FULTON ROAD / PARK DRIVE INTERSECTION IMPROVEMENT |
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| canfu | | | SUBTOTAL FEDERAL PA | | | 853 | 114 | | | - | | - | | - | - | - | | + | | | | | | | | | 12 53 |
| ¥ | | | SUBTOTAL LOCAL PA | RTICIPATION | | 2229 | 453 | | | - | | | | 1 | | | | | | | | | | | | | 53 |
| 15/3 | TOTA | LS CARRIED TO GENER | RAL SUMMARY | | 220 | 3082 | 567 | | | | | | | | L | <u> </u> | | <u></u> | 1 | L | L | | | | | | |

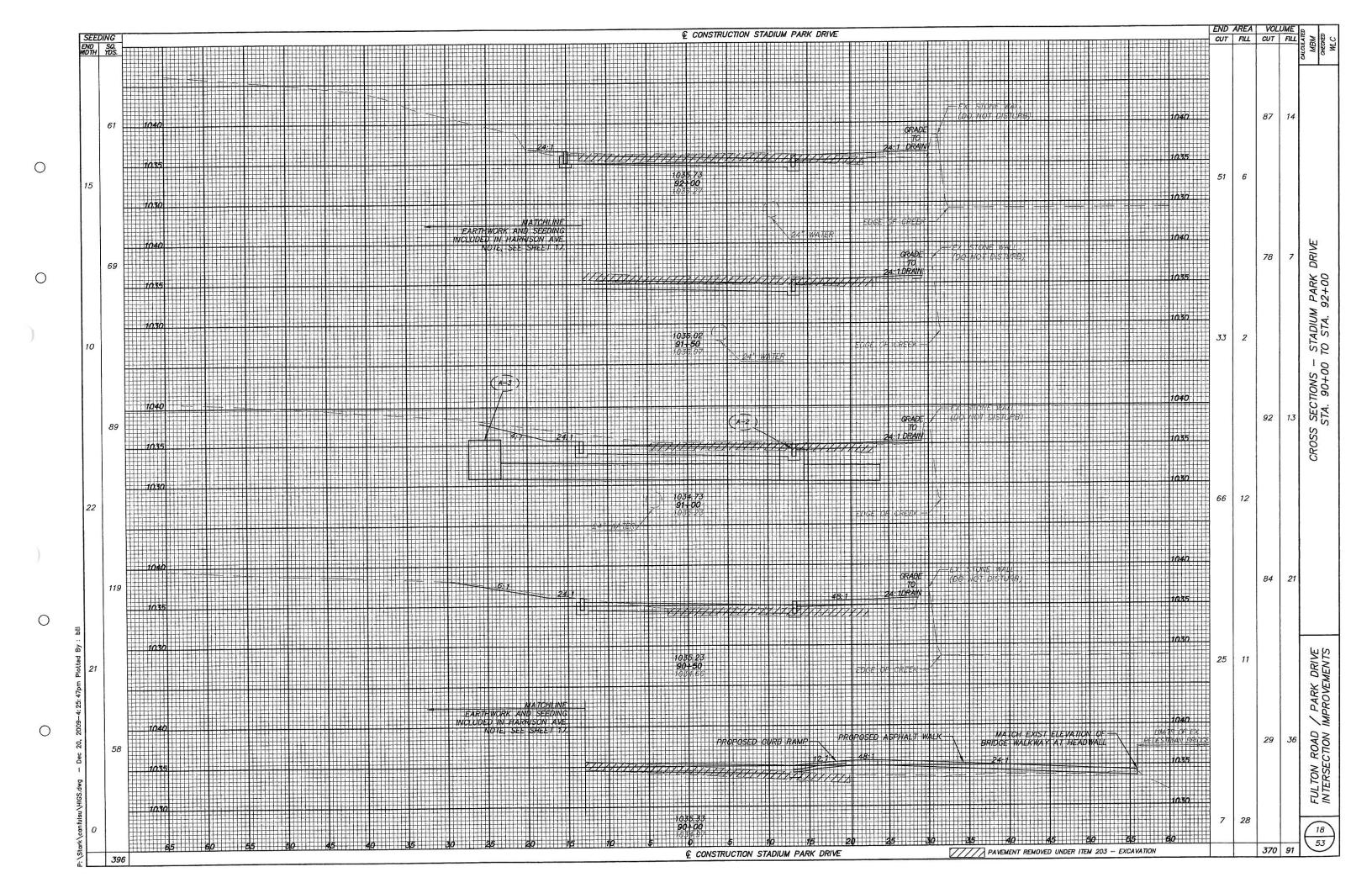


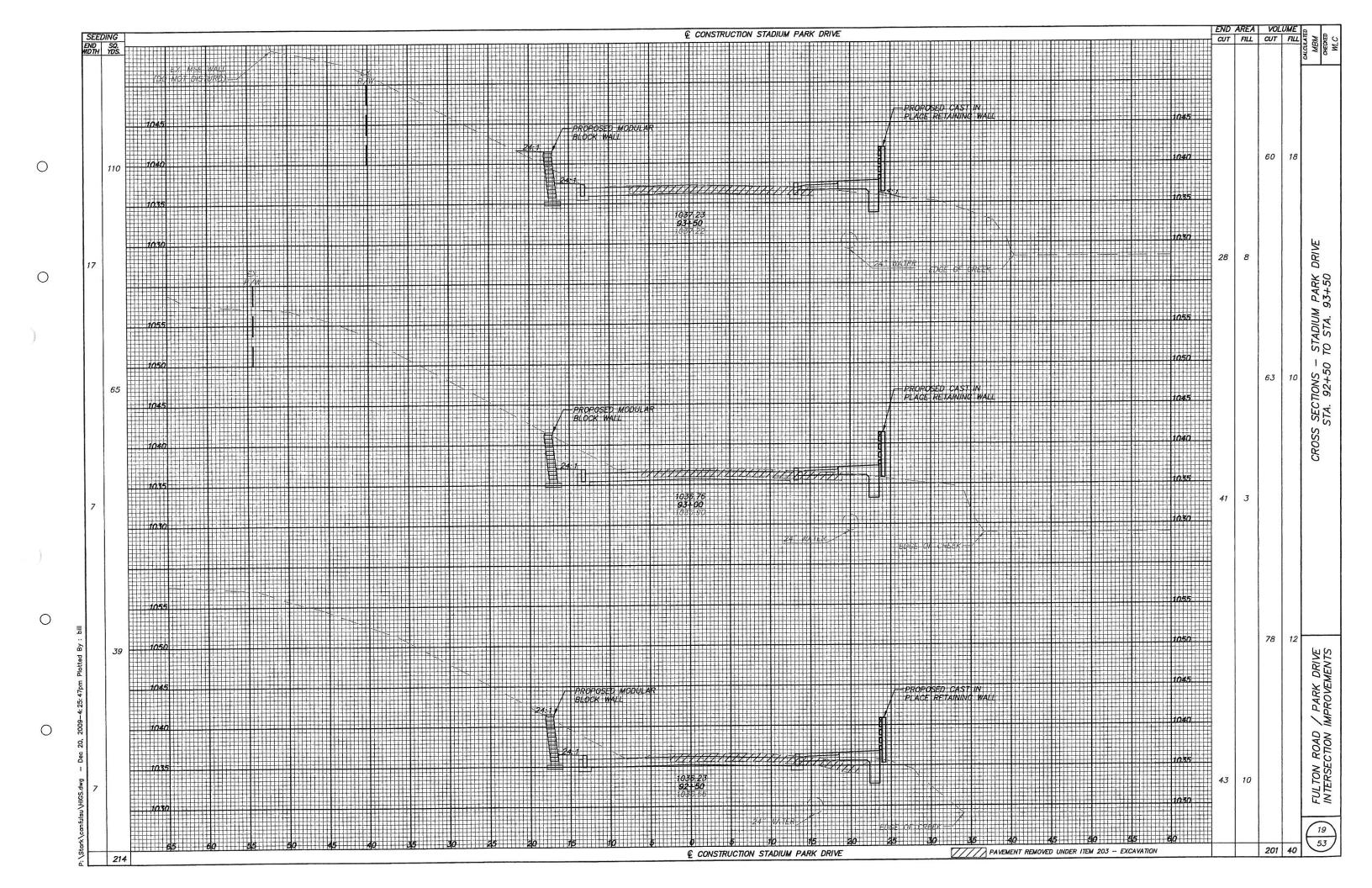


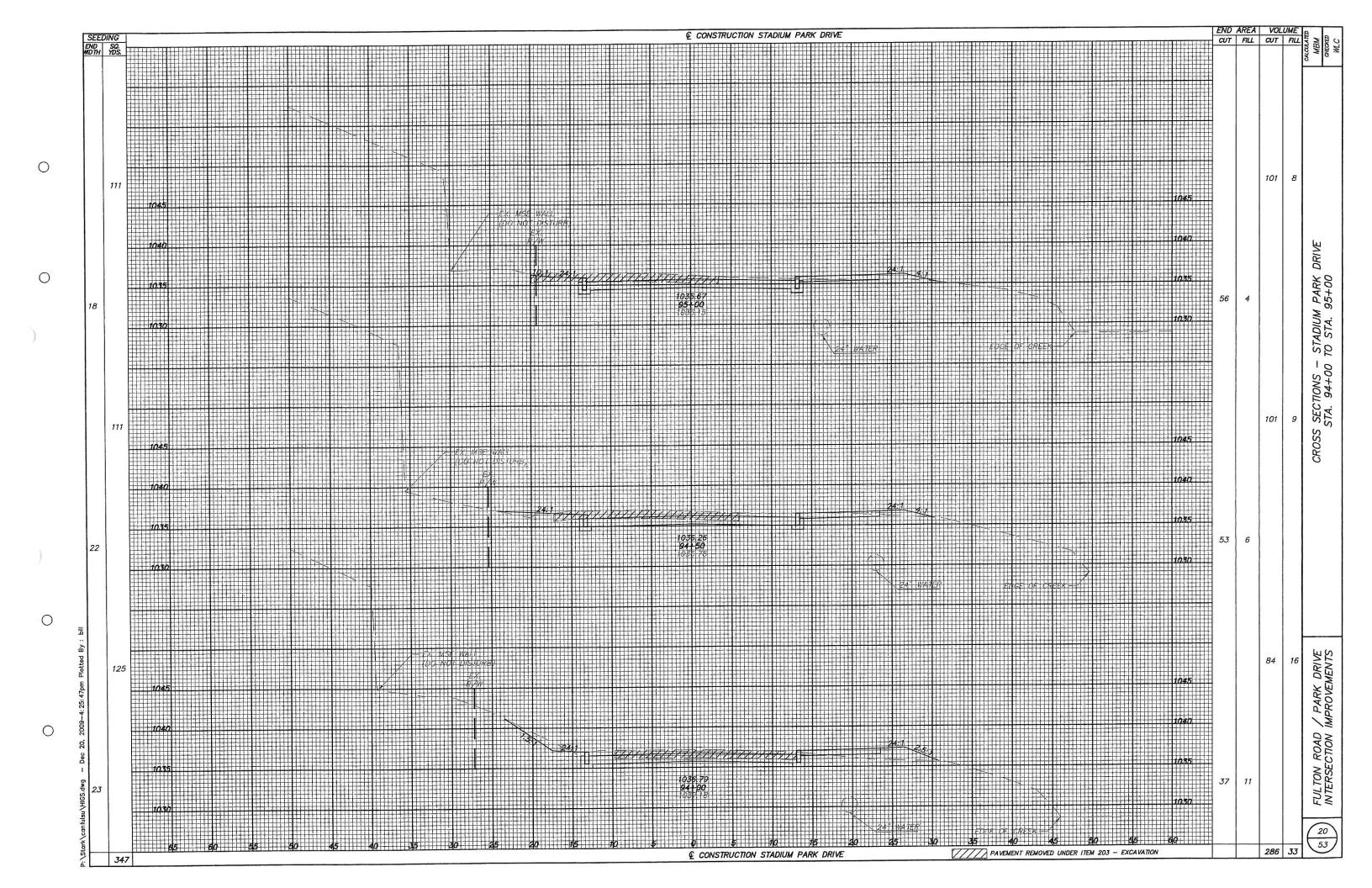


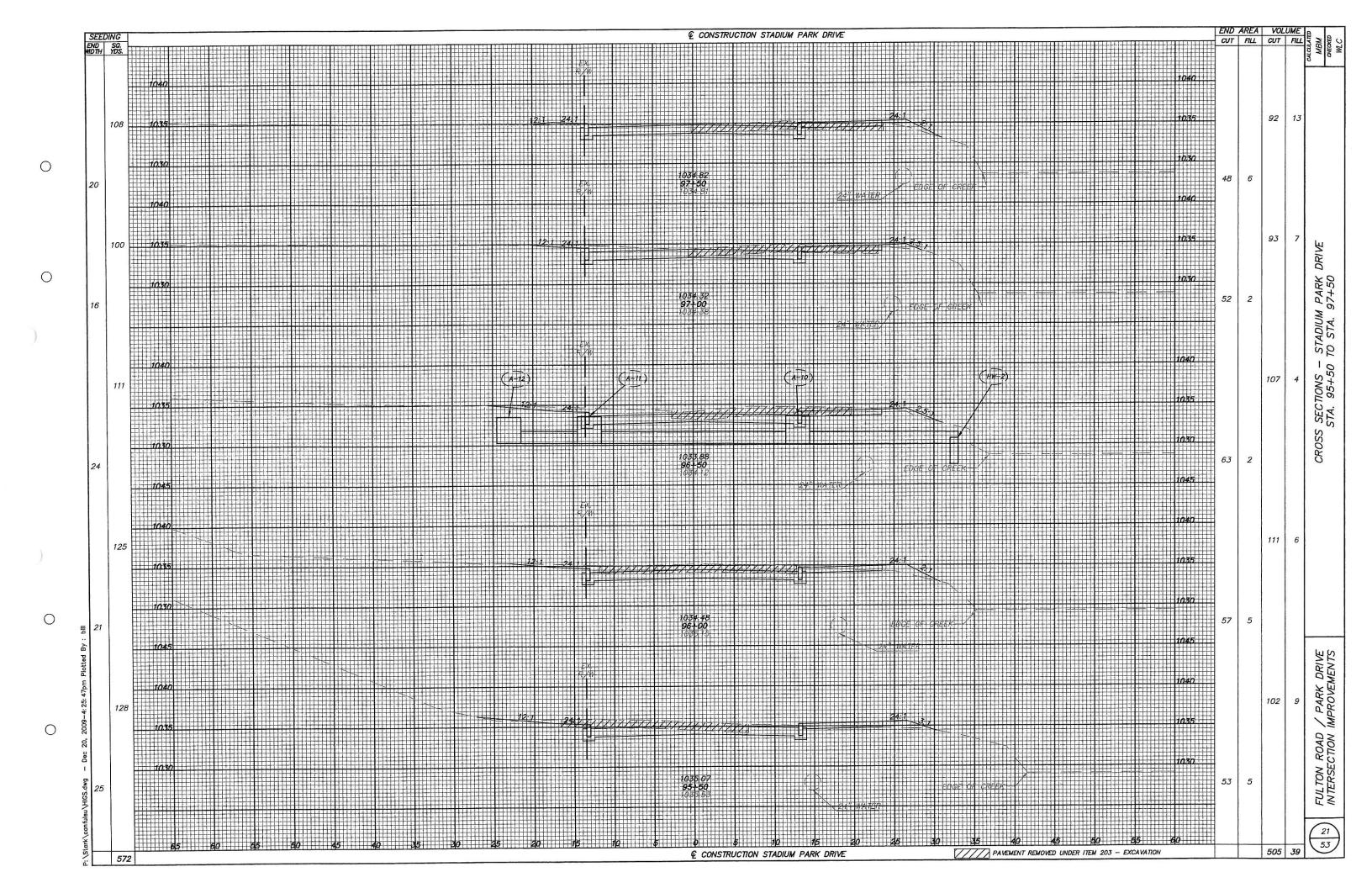


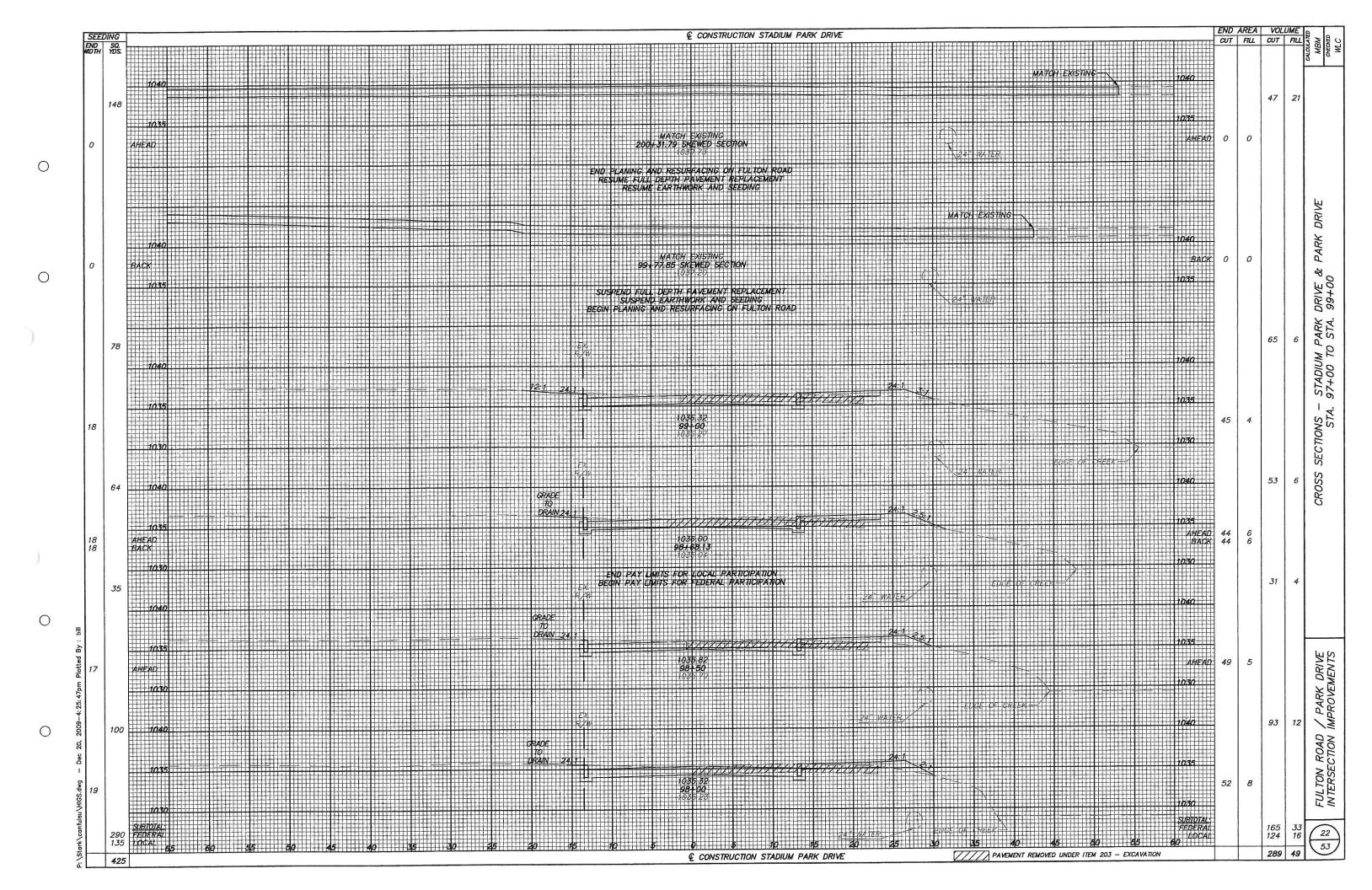


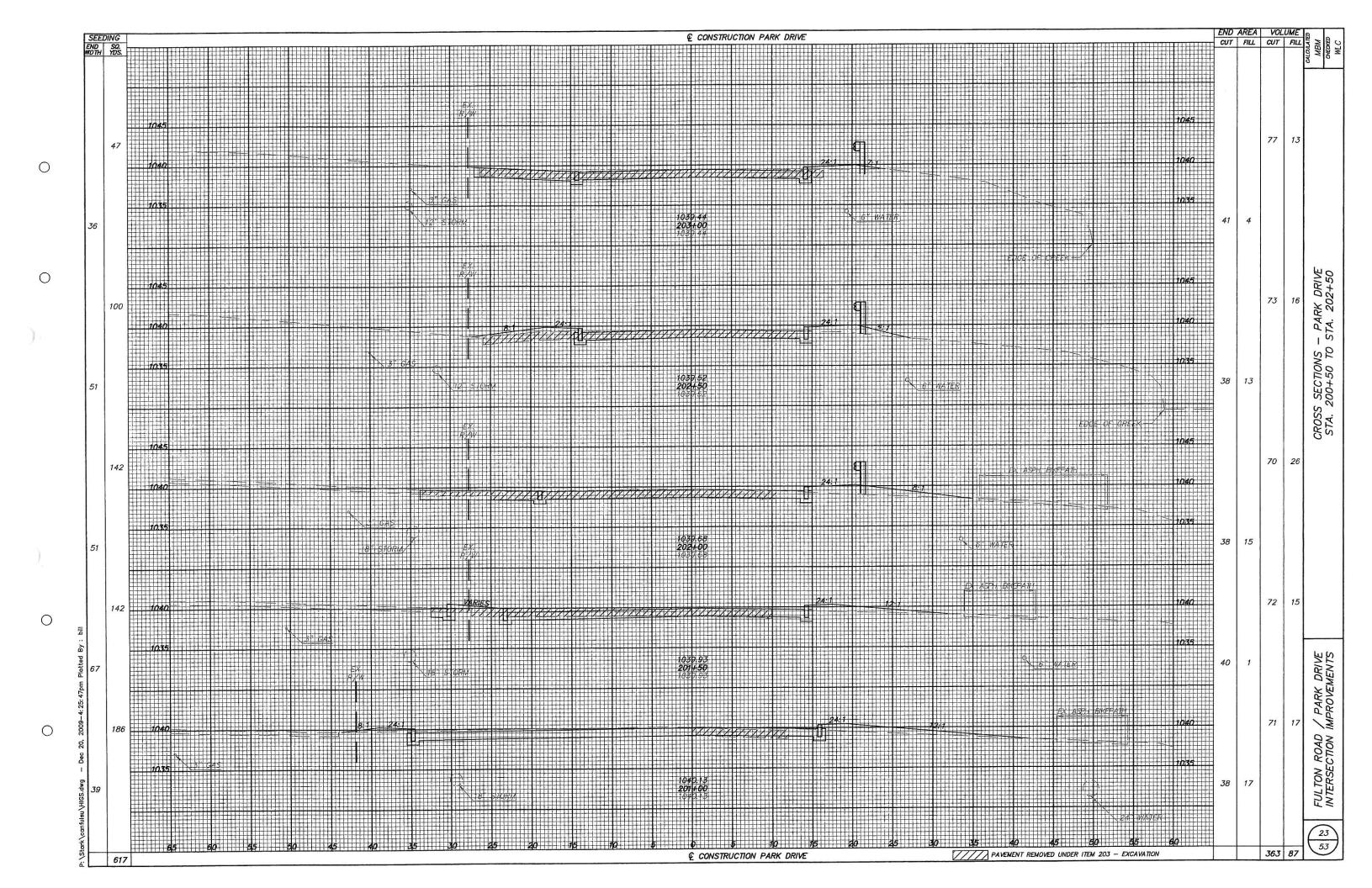


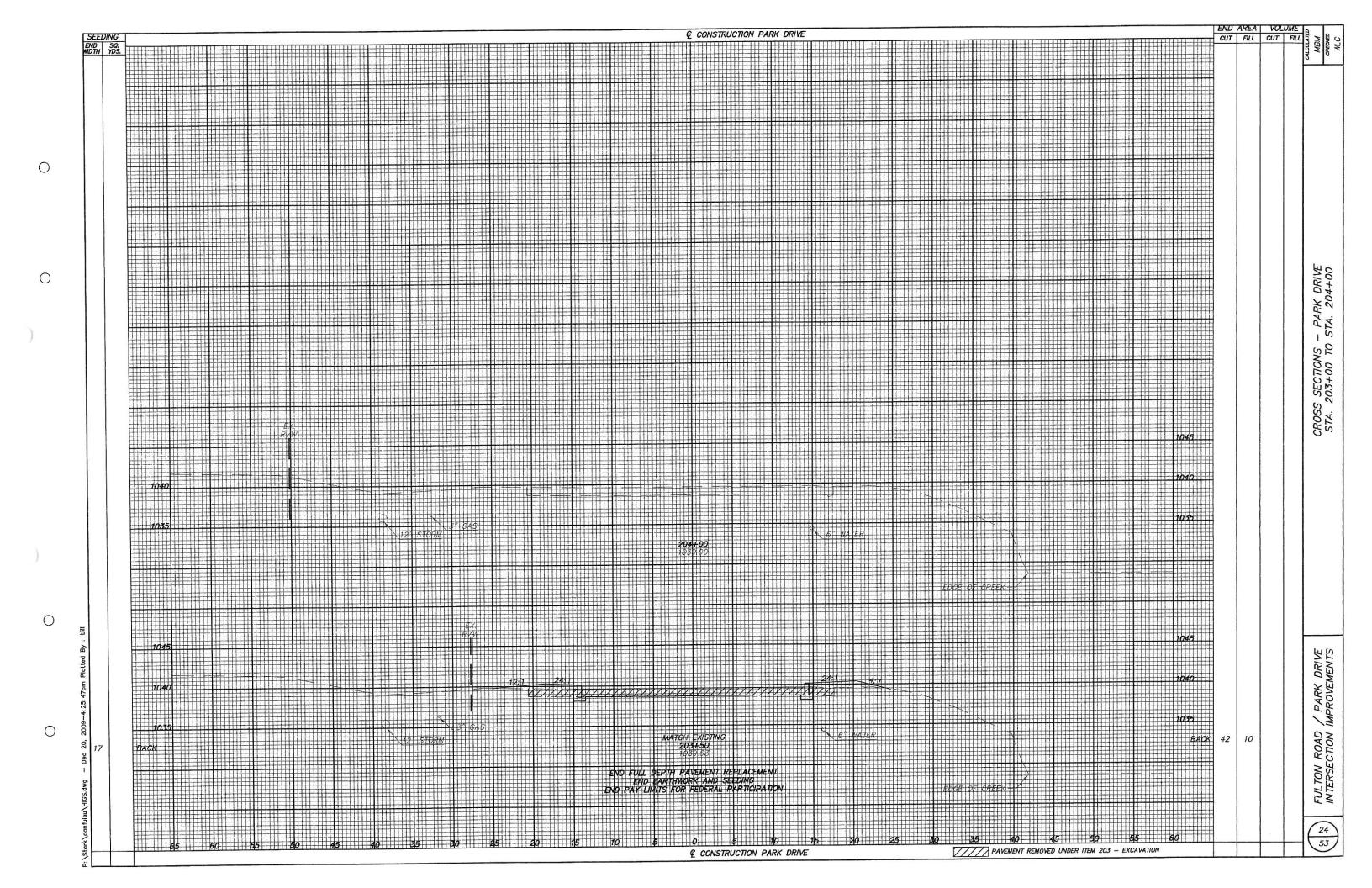


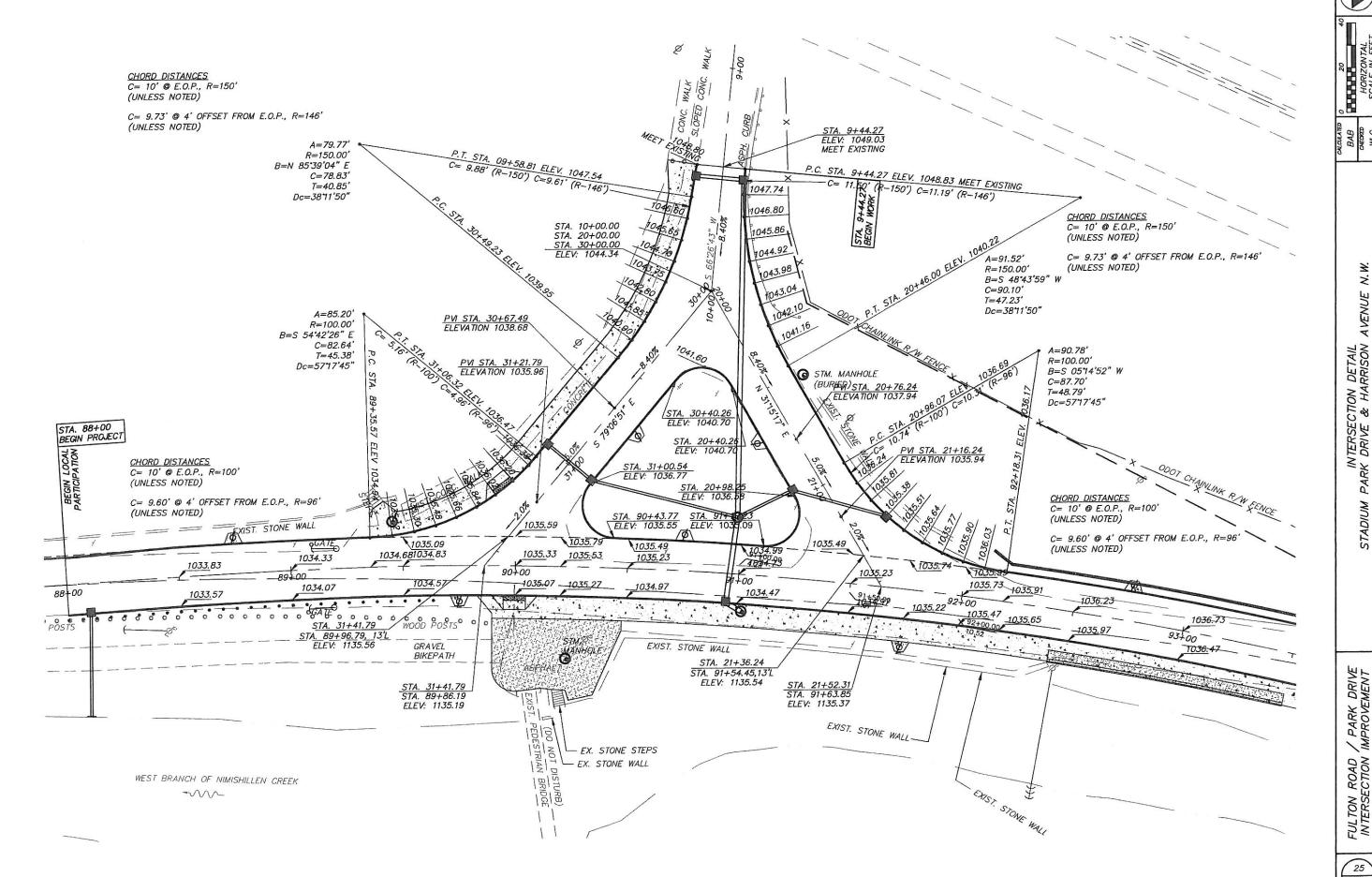












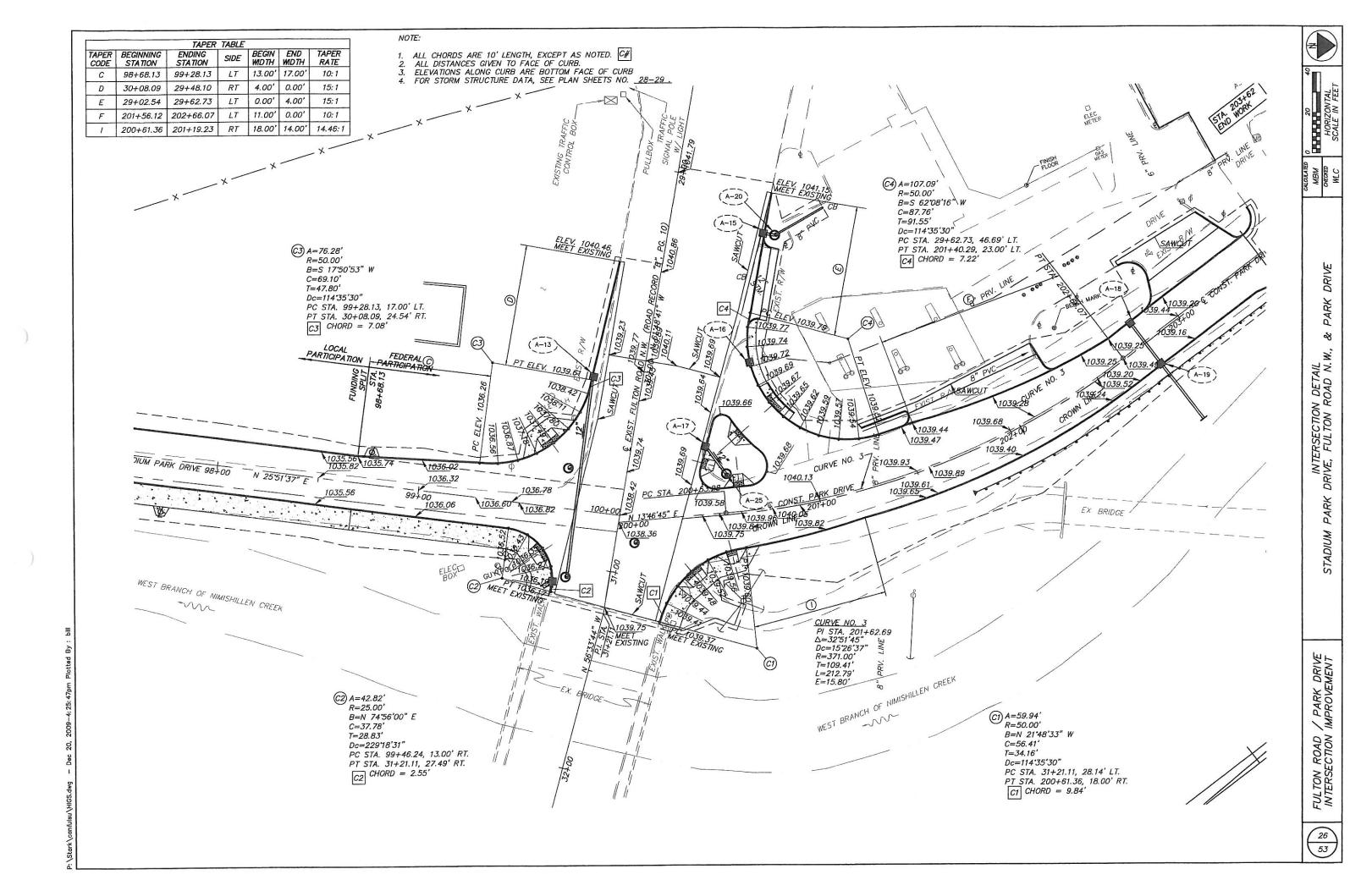
FULTON ROAD / PARK DRIVE INTERSECTION IMPROVEMENT 25

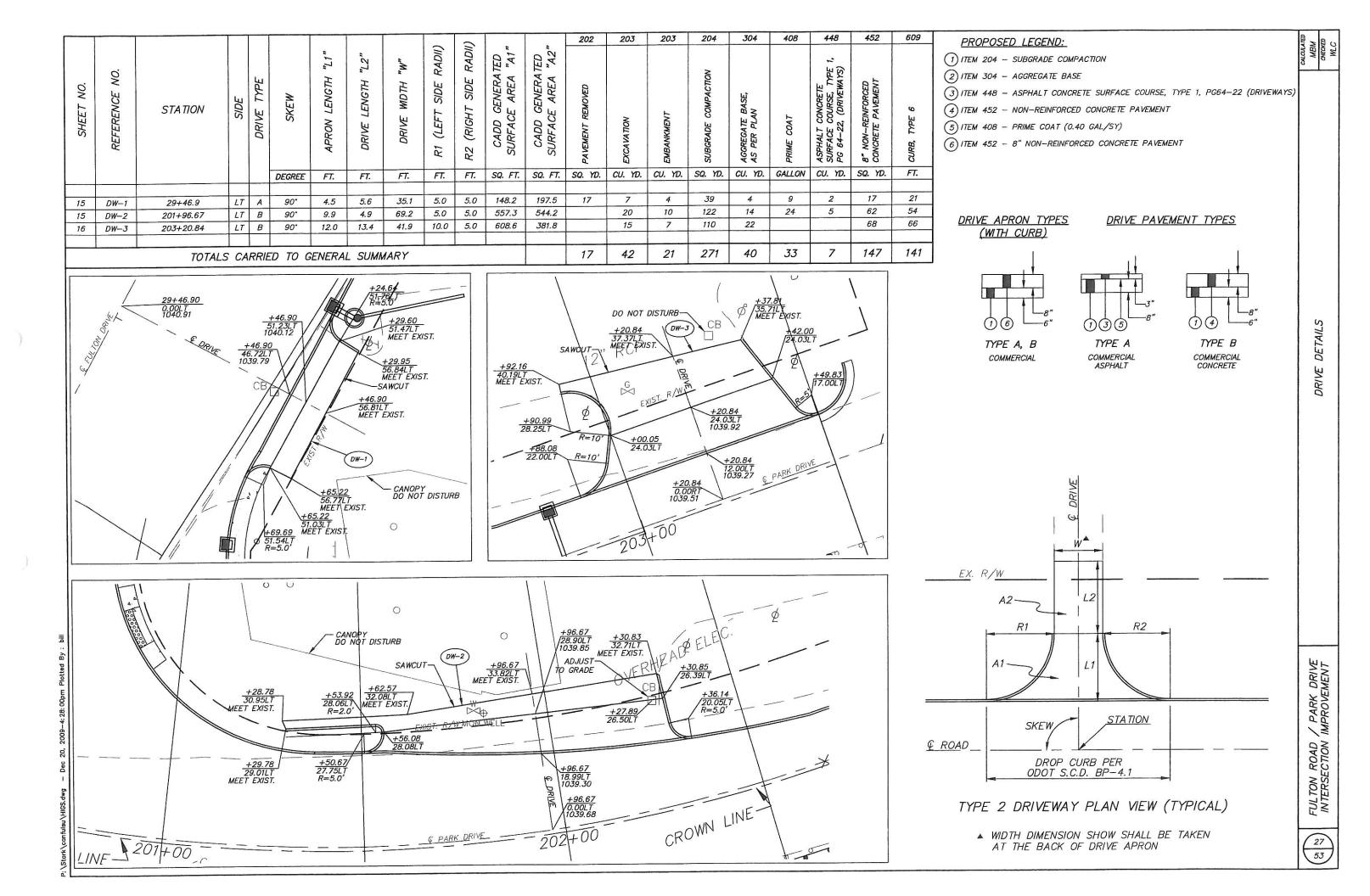
53

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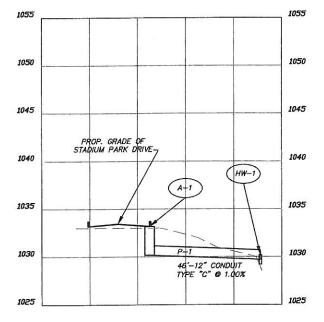
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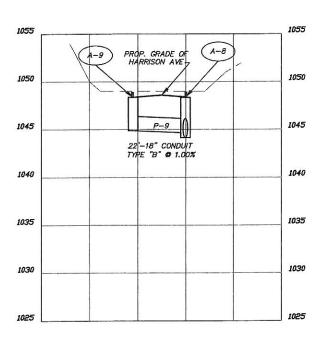






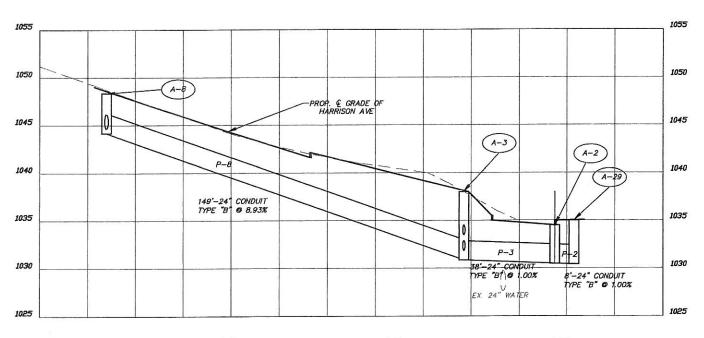
A-1 ITEM 604- CATCH BASIN, 3A STA. 88+10, 13.65° RT.
GRATE ELEVATION: 1033.16
12" INV. (E): 1030.16

HW-1 ITEM 604- HEADWALL, HW-2.1 STA. 88+06.01, 59' RT. 12" INV. (W): 1029.71



A-9 ITEM 604- CATCH BASIN, 3A STA. 9+49.26, 11.97' LT.
GRATE ELEVATION: 1048.37
18" INV. (N): 1044.87

A_B ITEM 604— CATCH BASIN, 3A STA. 9+49.27, 9.82' LT. GRATE ELEVATION: 1048.35 18" INV. (S): 1044.65 24" INV. (E): 1044.15

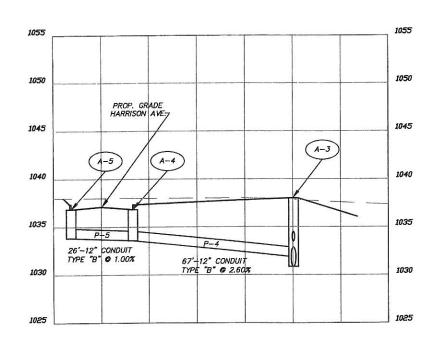


A-8 ITEM 604- CATCH BASIN, 3A STA. 9+49.27, 9.82' LT. GRATE ELEVATION: 1048.35 18" INV. (S): 24" INV. (E): 1044.65 1044.15

A_3 ITEM 604— STORM MANHOLE, NO. 3 STA. 90+97.72, 25.27' LT. GRATE ELEVA TION: 1038.00 12" INV. (N+S): 1031.85 12" INV. (NW): 1033.47 24" INV. (E+W): 1030.85

A-2 ITEM 604- CATCH BASIN, 3A STA. 91+00.00, 13.00° RT. GRATE ELEVATION: 1034.47 24" INV. (E+W): 1030.47

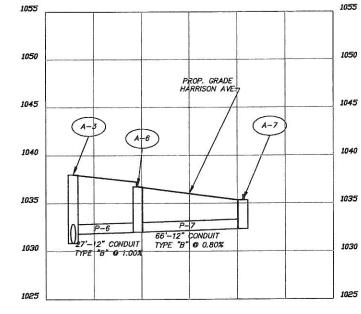
A=29 ITEM 604- MANHOLE, No. 3 STA. 91+02.07, 16.50' RT. GRATE ELEVATION: 1035.09 24" INV. (S): 1030.39 EX. 48" RCP: FIELD VERIFY EX. FLOWL



A_5 ITEM 604- CATCH BASIN, 3A STA. 90+13.30, 54.65' LT. GRATE ELEVATION: 1036.85 12" INV. (N): 1033.85

A-4 ITEM 604- CATCH BASIN, 3A STA. 90+33.21, 38.60' LT. GRATE ELEVATION: 1036.85 12" INV. (N+S):

A-3 ITEM 604- STORM MANHOLE NO. 3 STA. 90+97.72, 25.27 LT. GRATE ELEVATION: 1038.00 12" INV. (NW): 12" INV. (N+S): 24" INV. (E+W): 1031.81 1031.85 1030.85

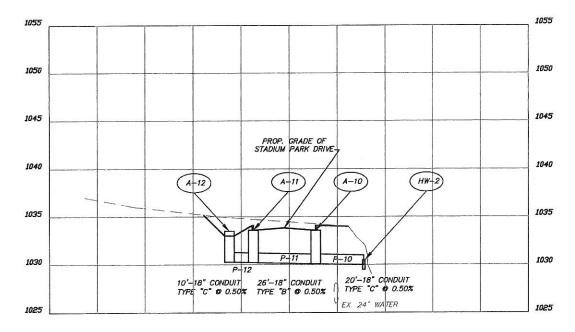


A-6 ITEM 604- CATCH BASIN, 3A ITEM 604- CATCH BASIN, 3A STA. 91+20.61, 39.08' LT.

GRATE ELEVATION: 1036.74

12" INV. (SE): 1032.01

12" INV. (S): 1032.38



A=12 ITEM 604- CATCH BASIN, 2-2B STA. 96+50.00, 23' LT. GRATE ELEVATION: 1033.50 WINDOW INN (N+S)" 1033.00 18" INV. (E): 1030.28

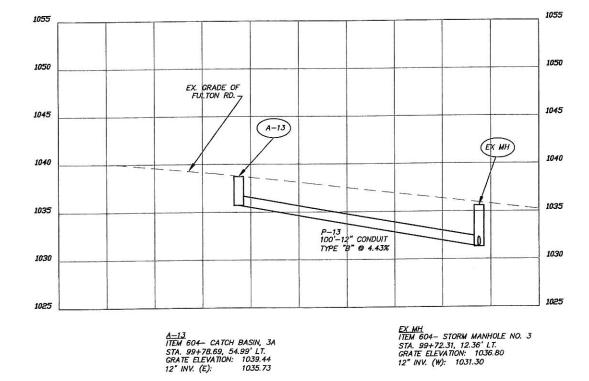
A-11 ITEM 604- CATCH BASIN, 3A STA. 96+50.00, 13' LT. GRATE ELEVATION: 1033.59 18" INV. (E+W): 1030.23

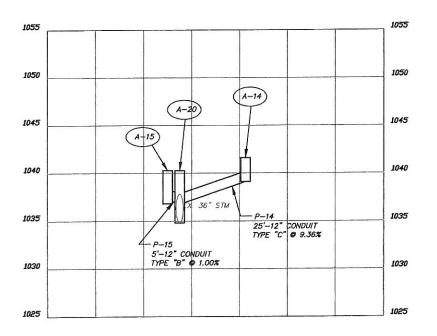
A=10 ITEM 604- CATCH BASIN, 3A STA. 96+50.00, 13' RT. GRATE ELEVATION: 1033.59 18" INV. (E+W): 1030.10

HW-2 ITEM 604- HEADWALL, HW-2.1 STA. 96+50.00, 33' RT. 18" INV. (W): 1030.00

> 28 53

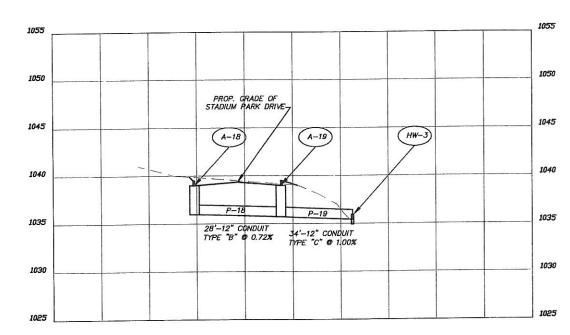






A-15 ITEM 604- CATCH BASIN, 3A STA. 200+79.90, 96.22 LT. GRATE ELEVATION: 1040.27 12" INV. (N): 1036.81 A-20 ITEM 604- MANHOLE, NO. 3 STA. 200+79.90, 96.22 LT. GRATE ELEVATION: 1040.85 12" INV. (N): 1036.76 12" INV. (S): 1036.76 36" INV. (E/W): 1034.81

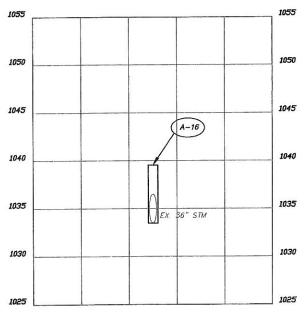
A-14 EX. CATCH BASIN STA. 200+79.90, 96.22 LT. EX. GRATE ELEVATION: 1041.61 EX. 6" INV. (N): 1039.41 12" INV. (S): 1039.10



A_18 ITEM 604— CATCH BASIN, 3A STA. 202+79.40, 14° LT. GRATE ELEVATION: 1038.17 12° INV. (E): 1035.56

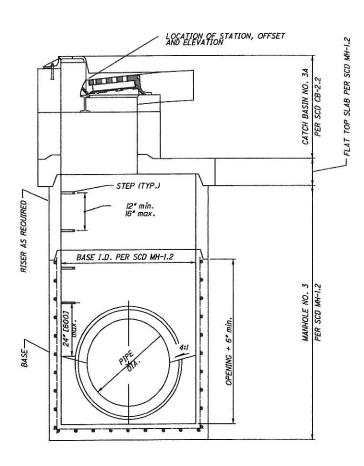
A-19 ITEM 604- CATCH BASIN, 3A STA. 202+79.40, 14' RT. GRATE ELEVATION: 1039.17 12" INV. (W): 1035.77

<u>HW-3</u> ITEM 604- HEADWALL, HW-2.1 STA. 202+79.40, 48' RT. 12" INV. (W): 1035.43

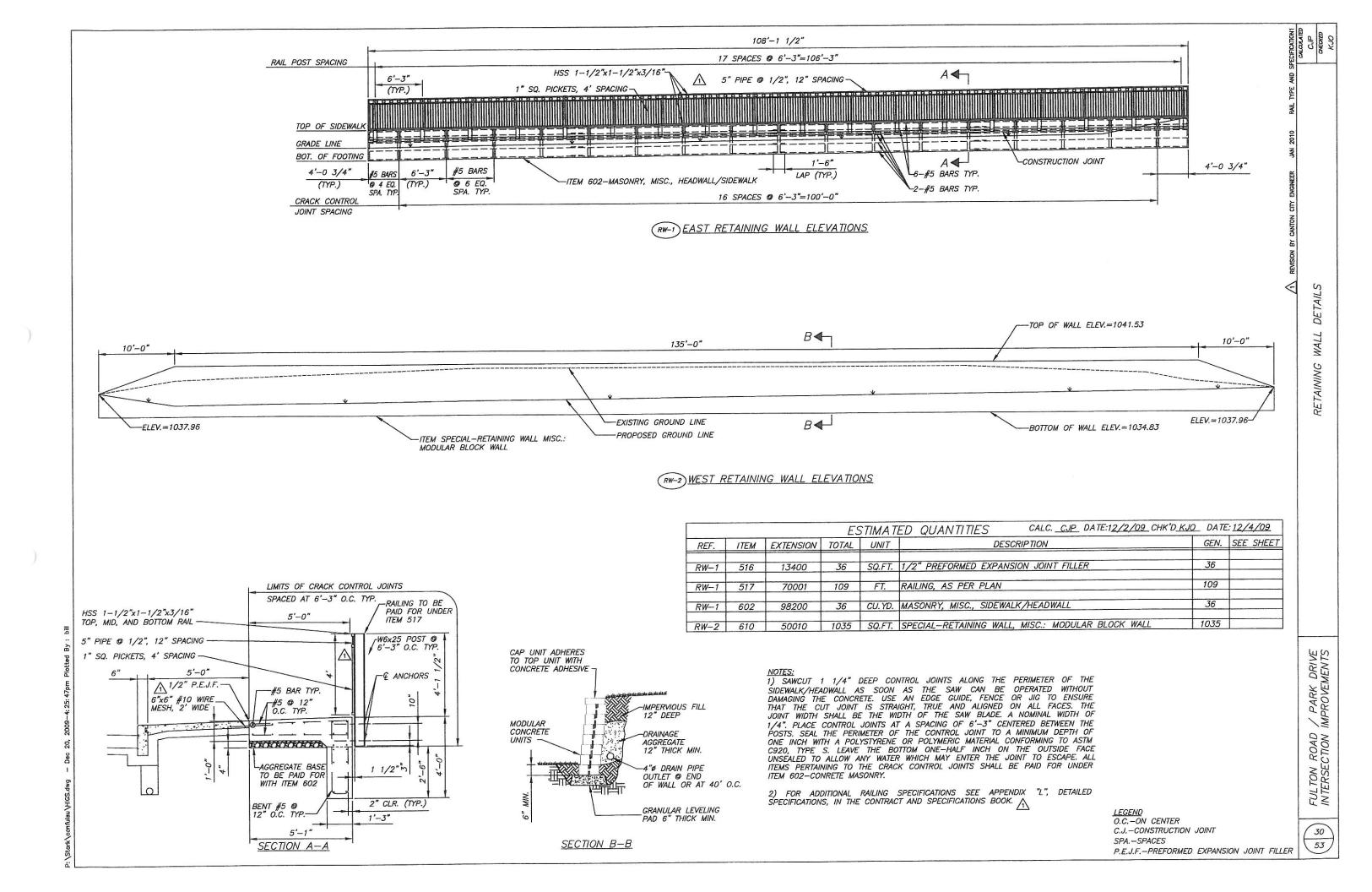


<u>A-16</u> ITEM 604- CATCH BASIN, 3A, AS PER PLAN 5TA, 200+79.90, 96.22 LT. GRATE ELEVATION: 1039.55 36" INV. (W/E): 1033.48

<u>NOTE:</u> FOR AS PER PLAN DETAIL AND NOTES, SEE THIS SHEET.



CATCH BASIN NO. 3A, AS PER PLAN



SIGNALS:

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 180 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. THE CONTRACTOR AND/OR SUPPLIER SHALL BE RESPONSIBLE FOR NEW EQUIPMENT WARRANTY FOR A ONE (1) YEAR PERIOD. IN THE EVENT OF UNSATISFACTORY OPERATION, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OR EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR. THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLERS AND ASSOCIATED EQUIPMENT, DETECTOR UNITS, INTERCONNECTION ITEMS, AND MASTER CONTROL EQUIPMENT. CUSTOMARY MANUFACTURER'S GUARANTEES SHALL BE TURNED OVER TO THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF ALL EQUIPMENT. THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE CLOSED LOOP SYSTEM.

NOTIFICATION

THE CONTRACTOR SHALL GIVE THE CITY OF CANTON AND THE ODOT DISTRICT TRAFFIC OFFICE, (330) 786-3145, 10 WORKING DAYS NOTICE PRIOR TO THE SIGNAL BEING PLACED IN THE "FLASH" MODE.

THE SIGNAL INSTALLATION SHALL BE INSPECTED BY ODOT DISTRICT PERSONNEL PRIOR TO BEING PLACED IN THE "STOP—AND—GO" MODE. ALL DEFICIENCIES OF AN OPERATIONALLY CRITICAL NATURE SHALL BE CORRECTED AND APPROVED BY THE TRAFFIC OFFICE BEFORE PLACING THE SIGNAL IN THE "STOP—AND—GO" MODE.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS
DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS
AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED
FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER
GOVERNING COMPLETION OF THIS PROJECT.

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION

BEFORE ANY WORK IS STARTED REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING SIGNAL/FLASHER INSTALLATIONS TO BE MAINTAINED. DURING THIS INSPECTION A WRITTEN RECORD OF THE CONDITION OF THE EXISTING SIGNAL/FLASHER SHALL BE MADE BY THE STATE'S REFRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL ITEMS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE JIGNED BY THE REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR.

AFTER THE REPORT HAS BEEN SIGNED BY ALL PARTIES, THE SIGNAL INSTALLATION SHALL BE TURNED OVER TO THE CONTRACTOR, WHO SHALL THEN BE REQUIRED TO MAINTAIN THE TRAFFIC SIGNAL INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

- A.) CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS INCLUDING DAMAGE DUE TO UTILITY RELOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION AT AN INTERSECTION FROM THE TIME THE INSTALLATION IS FIRST DISTURBED, WHETHER FROM UTILITY WORK OR FROM THE CONTRACTOR.
- B.) BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. AT THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL PROVIDE THE MAINTAINING AGENCY AND THE PROJECT ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE (1) OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, SEVEN (7) DAYS A WEEK.

THE CONTRACTOR SHALL HAVE THE MALFUNCTION CORRECTED AND/OR REPAIRED TO THE SATISFACTION OF THE ENGINEER WITHIN EIGHT HOURS OF THE NOTIFICATION OR LIQUIDATED DAMAGES OF \$500 PER HOUR SHALL BE ASSESSED THE CONTRACTOR.

ALL LAMP OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE PROJECT ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN EIGHT (8) HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGES.

SIGNALS:

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION (CONTINUED)
IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE ALL DAMAGED
EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE
CONTRACTOR TO THE SATISFACTION OF THE PROJECT ENGINEER WITH THE SIGNAL
BACK IN SERVICE WITHIN EIGHT (8) HOURS AFTER THE CONTRACTOR IS NOTIFIED OF
THE OUTAGE.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED EIGHT (8) HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE (1) LOCATION. WHERE MORE THAN ONE (1) OUTAGE OCCURS AT ANY ONE (1) LOCATION, THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY DAMAGES FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGES AS PER 107.15.

WHERE THE CONTRACTOR HAS FAILED TO OR CANNOT RESPOND TO AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE PROJECT ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE OR THE CITY OF CANTON FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONEYS DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15, IN ADDITION TO THESE BILLINGS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES OF \$500, HOUR FOR EACH HOUR BEYOND THE ALLOWED EIGHT HOUR PERIOD THAT THE SIGNAL IS INOPERATIVE.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICES ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A MUTUALLY ACCEPTABLE AGREEMENT WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE.

THE CONTRACTOR SHALL INFORM THE PROJECT ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DUE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM.

WHEN A TRAFFIC SIGNAL AUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR DUE TO CONSTRUCTION PROCEDURES. THIS OUTAGE SHALL NOT EXCEED FOUR (4) HOURS FOR INSTALLATIONS UTILIZING NEW FOUNDATIONS AND EIGHT (8) HOURS FOR INSTALLATIONS UTILIZING EXISTING FOUNDATIONS AND NO OUTAGE TIME PERIOD SHALL NCLUDE THE HOURS OF 6:00 AM TO 8:00 AM AND 4:00 PM TO 6:00 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED, AS DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1). TIME OF NOTIFICATION OF MALFUNCTION; 2). TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION; 3). ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED; 4). A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE; AND 5). TIME OF COMPLETION OF REPAIR AND SYSTEM RESTORED TO FULL SERVICE. A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614—MAINTAINING TRAFFIC.

CONDUIT, (BY SIZE), 725.05, AS PER PLAN

ALL CONDUITS AND FITTINGS SHALL BE TYPE EB, SCHEDULE 40 PVC ENCASED IN CONCRETE. ALL CONDUITS SHALL HAVE PULL WIRE. ALL CONDUITS ENTERING A PULL BOX, POLE, ETC. SHALL NOT EXTEND MORE THAN 1" BEYOND THE PULL BOX, POLE, ETC.

SIGNALS:

TRENCH IN PAVED AREA, BY TYPE, AS PER PLAN
IN ADDITION TO THE REQUIREMENTS OF 625.11, THIS ITEM SHALL INCLUDE FULL SLAB
REPLACEMENT WHEN TRENCHING IN SIDEWALK. BORING OR JACKING THE CONDUIT UNDER
THE PAVEMENT CAN BE PERFORMED IN LIEU OF TRENCHING. IF BORING OR JACKING IS
PERFORMED IN LIEU OF TRENCHING, THE CONDUIT PLACED SHALL BE 725.04. ANY EXTRA
COST FOR THE 725.04 CONDUIT SHALL BE INCLUDED IN THIS ITEM.

ITEM 625—PULL BOX, 725.06, (BY SIZE), AS PER PLAN
PULL BOXES SHALL BE MANUFACTURED BY CARSON BROOKS (MODEL #1324 AND
#1730), QUAZITE (MODEL (#PG1324BA18/PG1324HA44 AND
#PG1730BA18/PG1730HA44), OR SYNERTECH (MODEL #S1324 HBB0A18 AND #S1730
HBB0A18) OR APPROVED EQUAL. ALL PULL BOXES SHALL INCLUDE A POLYMER
CONCRETE RING AND COVER TYPE, OR EQUAL, AND SHALL BE MARKED "TRAFFIC".
THE PULL BOX SHALL BE FIBERGLASS REINFORCED POLYESTER, OR EQUAL, WITH
INSERTS AND SHALL BE 18" IN DEPTH. EACH PULL BOX SHALL INCLUDE TWO (2)
STAINLESS STEEL HEX BOLTS. EACH PULL BOX AND COVER SHALL HAVE A MINIMUM
LOAD RATING OF 20,000 POUNDS CAPACITY IN ACCORDANCE WITH THE WESTERN
UNDERGROUND COMMITTEE GUIDE 3.6. UNDERDRAINS SHALL NOT BE INSTALLED IN
PULL BOXES.

ITEM 625—GROUND ROD, AS PER PLAN
IN ADDITION TO THE REQUIREMENTS OF 625.09, THIS ITEM SHALL CONSIST OF
FURNISHING AND RUNNING OF A SEVEN STRAND #4 COPPER WRE FROM THE TOP OF
THE GROUND ROD AND ATTACHING IT TO THE NEUTRAL BAR IN THE CABINET.
PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE PER EACH.
FOR LIGHT AND SIGNAL POLES, SEE SHEET 33 15 53.
ITEM 632—VEHICULAR SIGNAL HEAD (LED), BY TYPE, 12" LENS,
1—WAY, POLYCARBONATE, AS PER PLAN
IN ADDITION TO THE REQUIREMENTS OF CMS 632 AND 732, THE FOLLOWING
REQUIREMENTS SHALL ALSO APPLY:

- A. VEHICULAR SIGNAL HEADS SHALL BE FREE SWINGING
- B. ALL UPPER SIGNAL SUPPORT HARDWARE AND PIPING UP TO AND INCLUDING THE WIRE INLET FITTING SHALL BE FERROUS METAL FOR SIGNAL DISPLAYS OF TWO JR MORE SECTIONS.
- C. THE ENTRANCE FITTING SHALL BE OF THE TRI-STUD DESIGN WITH SERRATED RINGS IN ORDER TO ACHIEVE POSITIVE LOCKING.
- D. VEHICULAR SIGNAL HEADS SHALL BE PROVIDED WITH A PIVOT AND LOCK
 BALANCE ADJUSTER. ALL BALANCE ADJUSTERS SHALL HAVE A MINIMUM
 THREE-QUARTER INCH (19 MILLIMETER) SYE BOLT AND THREE-QUARTER INCH (19
 MILLIMETER) WIDE SLOT. EYEBOLTS ARE CAST FROM 316 STAINLESS STEEL AND
 PROVIDED WITH A SATIN FINISH. THREE-QUARTER INCH (19 MILLIMETER) BODY
 HALVES ARE CAST FROM A MINIMUM 65-45-. DUCTILE IRON AND PROVIDED
 WITH A BRIGHT ZINC FINISH (ZN1).
- E. ALL LAMP UNITS SHALL BE THE 12 INCH (300 MILLIMETER) SIZE AND BE EQUIPPED WITH 12"X11" CUTAWAY VISORS, UNLESS OTHERWISE NOTED IN PLANS.
- F. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.
- G. PIPE, SPACERS AND FITTINGS CONSTRUCTED OF ALUMINUM.
- H. PROPER EXTERIOR COLORS SHALL BE OBTAINED 3Y USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING. ALL EXTERIOR COLOR SHALL BE FEDERAL HIGHWAY YELLOW OR BLACK AT INTERSECTIONS THAT CONTAIN NOSTALGIA SIGNAL SUPPORTS AND PEDESTALS. THE FOLLOWING IS A SUMMARY OF THE SIGNAL HEADS NEEDED:

BLACK COLORED HEADS: SEVEN (7) 3-SECTION, 1-WAY TWO (2) 5-SECTION, 1-WAY

THE CONTRACTOR SHALL PROVIDE THE CITY, IN WRITING, THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP, AND DATE OF MANUFACTURE FOR ALL LED UNITS TO BE USED IN THE TRAFFIC SIGNAL HEADS PRIOR TO INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES. THE INFORMATION SHALL BE SENT TO THE FOLLOWING LOCATION:

TRAFFIC ENGINEERING DEPARTMENT ATTN: NICHOLAS LOUKAS, P.E. 2436 30TH STREET N.E. CANTON. OHIO 44705

ODOT WILL MEASURE "VEHICULAR SIGNAL HEAD WITH LED LAMP UNITS, BY TYPE, AS PER PLAN" BY THE NUMBER OF COMPLETE UNITS FURNISHED AND INSTALLED, AND WILL INCLUDE ALL SUPPORT AND MOUNTING HARDWARE, DISCONNECT HANGERS, CLOSURE CAPS, DIMMERS AND LAMPS AS SPECIFIED.

SIGNALS:

ITEM 632—PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, AS PER PLAN IN ADDITION TO THE REQUIREMENTS OF CMS 632 AND 732, THE FOLLOWING REQUIREMENTS SHALL ALSO APPLY:

- A. LED, LIGHT EMITTING DIODE, SIGNAL LAMP UNITS SHALL MET THE REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION 872. ALL LAMP UNITS SHALL BE THE 16 INCH SIZE AND A SINGLE UNIT.
- 9. THE LED LAMP UNIT SHALL DISPLAY THE SYMBOLS FOR THE UPRAISED HAND OR THE WALKING PERSON, SIDE BY SIDE, FILLED.
- C. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.
- D. ALL LAMP UNITS SHALL BE PROVIDED WITH QUICK COUPLERS FOR SIDE OF POLE MOUNTING OR WITH TOP OF PEDESTAL MOUNTING HARDWARE, AS SPECIFIED IN THE PLANS.
- E. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL (BLACK) RATHER THAN PAINTING.

THE CONTRACTOR SHALL PROVIDE THE CITY, IN WRITING, THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP, AND DATE OF MANUFACTURE FOR ALL LED UNITS TO BE USED IN THE TRAFFIC PEDESTRIAN HEADS PRIOR TO INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES. THE INFORMATION SHALL BE SENT TO THE FOLLOWING LOCATION:

TRAFFIC ENGINEERING DEPARTMENT ATTN: NICHOLAS LOUKAS, P.E. 2436 30TH STREET N.E. CANTON. OHIO 44705

ODOT WILL MEASURE "PEDESTRIAN SIGNAL HEAD WITH LED LAMP UNITS, TYPE D2, AS PER PLAN" BY THE NUMBER OF COMPLETE UNITS FURNISHED AND INSTALLED, AND WILL INCLUDE ALL SUPPORT AND MOUNTING HARDWARE, CLOSURE CAPS, AND LAMPS AS SPECIFIED.

ALL PROPOSED CONNECTIONS SHALL BE FIELD DRILLED. BANDING OR STRAPPING ON THE NOSTALGIA SIGNAL POLES SHALL NOT BE PERMITTED.

ITEM 632—PEDESTRIAN PUSHBUTTON, AS PER PLAN
PEDESTRIAN PUSHBUTTON SHALL BE AMERICANS WITH DISABILITIES ACT (ADA)
COMPLIANT AND FREEZE PROOF. IN ORDER TO CONFORM TO ADA, THE
REQUIREMENTS OF 632.09 AND 732.06 ARE MODIFIED AS FOLLOWS:

- A. THE MAXIMUM FORCE REQUIRED TO OPERATE THE PUSHBUTTON SHALL BE FIVE (5) POUNDS PER FOOT.
- B. THE PUSHBUTTON SHALL BE RAISED OR FLUSH AND SHALL BE A MINIMUM OF TWO (2) INCHES AT THE SMALLEST DIMENSION.

ITEM 632-INTERCONNECT CABLE, 6 PAIR, NO. 19 AWG, SOLID, REA, (PE-39), AS PER PLAN
UNDERGROUND INTERCONNECT CABLE SHALL BE GELLED FILLED DUCT CABLE, 6 PAIR,

NO. 19 AWG IN ACCORDANCE WITH IMSA SPEC. 59-2.

THE CONTRACTOR SHALL NOT ORDER THE POLES PRIOR TO RECEIVING THIS DATA.

SUPPORT FOUNDATION LOCATIONS SHALL BE ADJUSTED ONLY WHEN APPROVED BY
THE ENGINEER. THE CONTRACTOR IS ADVISED TO LOCATE AND CONSTRUCT THE
SIGNAL SUPPORT FOUNDATIONS AS SOON AS POSSIBLE IN ORDER TO PROVIDE AMPLE
LEAD TIME TO ORDER THE SIGNAL SUPPORTS AND THEIR ASSOCIATED MAST ARMS.
ALL FOUNDATIONS SHALL BE HAND EXCAVATED UNLESS OTHERWISE DIRECTED BY THE
ENGINEER. NO TIME EXTENSIONS SHALL BE GRANTED FOR DELAYS WHICH ARE

POSSIBLE IN THE CONTRACTORS PROGRESS SCHEDULE.

PAYMENT FOR ITEM 632 - SIGNAL SUPPORT FOUNDATION, AS PER PLAN SHALL BE MADE AT THE UNIT CONTRACT PRICE BID PER EACH. PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO EXCAVATE AND BUILD THE FOUNDATION SYSTEM, COMPLETE IN PLACE AND ACCEPTED.

CAUSED BY THE CONTRACTOR'S FAILURE TO PLAN FOUNDATION WORK AS SOON AS

SIGNALS:

LOCATIONS WHICH CONTAIN NUMEROUS EXISTING UNDERGROUND UTILITIES. ORDERS

FOR SIGNAL POLES AND MAST ARMS SHALL BE PLACED SYSTEMATICALLY AFTER

THEIR RESPECTIVE FOUNDATIONS HAVE BEEN CONSTRUCTED. FOUNDATIONS THAT HAVE BEEN CONSTRUCTED SHALL BE PROTECTED AS PER SECTION 107.07 OF THE

RECEIVING A SIGNED CONTRACT, THE CONTRACTOR SHALL LAYOUT THE PERIMETER

OUPS NOTIFICATION. BASED UPON THE PRIORITIES DETERMINED AT THIS MEETING,

THE CONTRACTOR WILL CONSTRUCT FOUNDATIONS BEGINNING WITH THE HIGHEST

DAYS, THE CONTRACTOR WILL BE PROVIDED WITH REVISED POLE AND ARM DATA.

OF EACH FOUNDATION THEN CONTACT OUPS AND ODOT (330-297-0801, EXT 298).

A MEETING BETWEEN THE CONTRACTOR, ENGINEER AND A REPRESENTATIVE FROM THE

CITY OF CANTON WILL BE HELD ON SITE NO LATER THEN TWO (2) WEEKS AFTER THE

PRIORITY FIRST. IF A UTILITY OR OTHER CONFLICT EXISTS WHICH REQUIRES THAT A

SIGNAL SUPPORT BE CONSTRUCTED AT A LOCATION OTHER THAN WHAT IS INDICATED IN THE PLAN. THE ENGINEER SHALL DETERMINE WHETHER THE SPECIFIED MAST ARM

LENGTH IS APPROPRIATE. IF A LONGER ARM IS REQUIRED, WITHIN TEN (10) WORKING

CONSTRUCTION AND MATERIAL SPECIFICATIONS. WITHIN TWO (2) WEEKS OF

<u>ITEM 632 — SIGNAL SUPPORT FOUNDATION, AS PER PLAN</u> THIS PROJECT REQUIRES CONSTRUCTION OF SIGNAL SUPPORT FOUNDATIONS IN

BECAUSE OF THE RECOGNIZED TIME DELAY BETWEEN THE CONSTRUCTION OF THE FOUNDATIONS AND THE DELIVERY OF THE SIGNAL SUPPORTS AND/OR PEDESTALS FROM THE MANUFACTURER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE NEW CONSTRUCTED FOUNDATIONS BY A DEVICE SUCH AS A WOODEN BOX IN ACCORDANCE WITH ODOT SECTION 107.07. THE TYPE OF PROTECTIVE DEVICE SHALL BE APPROVED BY ODOT PRIOR TO 1TS APPLICATION IN THE FIELD. TRAFFIC CONES SHALL NOT BE ACCEPTABLE PROTECTIVE DEVICES CAN BE REUSED IF THEY ARE NO LONGER NEEDED AT A PREVIOUS INTERSECTION AND THEY MEET ODOT SECTION 107.07.

FOUNDATIONS FOR NOSTALGIA SIGNAL SUPPORTS SHALL BE CONSTRUCTED AS PER DETAILS ON PLAN SHEET 39

ITEM 632—PEDESTAL FOUNDATION, AS PER PLAN
FOUNDATIONS FOR NOSTALGIA PEDESTALS SHALL BE CONSTRUCTED AS PER DETAILS
ON PLAN SHEET 39

ITEM 632-POWER CABLE, 3 CONDUCTOR, NO. 4 AWG, AS PER PLAN POWER CABLE SHALL BE 3 CONDUCTOR, NO. 4 AWG STRANDED, COPPER, TYPE UF, 600 VOLT.

ITEM 632-POWER SERVICE, AS PER PLAN

POWER SERVICE SHALL BE AS PER ODOT SPECIFICATION 632 AND ODOT STANDARD CONSTRUCTION DRAWING TC-83.20. ELECTRIC POWER SHALL BE SUPPLIED BY AMERICAN ELECTRIC POWER (AEP). THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER COMPANY'S CIRCUITS. THE VOLTAGE SUPPLIED SHALL BE NOMINALLY 120 VOLTS, EXCEPT WHERE DECORATIVE SIGNAL SUPPORTS WITH ORNAMENTAL LUMINAIRE WHICH REQUIRES 240V OR 208V. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE SIGNAL IS ACCEPTED BY THE CITY OF CANTON.

ELECTRICAL POWER SHALL BE FURNISHED BETWEEN THE PROPOSED SIGNAL/LIGHTING CONTROL CENTER TO THE PROPOSED SIGNAL CONTROLLER CABINET. THE CONTRACTOR SHALL COORDINATE WORK FOR ITEM 632—POWER SERVICE, AS PER PLAN WITH ITEM 625—POWER SERVICE, AS PER PLAN AS DESCRIBED ON PLAN SHEET NO. 52.

SIGNALS:

ITEM 632-SIGNAL SUPPORT, MISC.: NOSTALGIA SIGNAL SUPPORT-UNION METAL CORPORATION (ONE-ARM AND TWO-ARM) NOSTALGIA SIGNAL SUPPORTS (MAST ARM POLES AND ARMS) SHALL BE PACIFIC FAMILY 50312GF SERIES (SEE DETAILS ON PLAN SHEETS 35-39) AND MANUFACTURED BY:

UNION METAL CORPORATION 1432 MAPLE AVENUE N.E. P.O. BOX 9920 CANTON, OH 44711 PHONE: 330-456-7653

THE CONTRACTOR SHALL FURNISH AND INSTALL NOSTALGIA SIGNAL SUPPORTS AS PER PLANS, ALL HARDWARE INCLUDING LUMINAIRES AND RELATED EQUIPMENT SHALL BE INCLUDED WITH THIS ITEM.

THE MANUFACTURER SHALL PROVIDE WRITTEN CERTIFICATION TO THE CITY THAT THE ACCEPTED POLE, ARM, LUMINAIRE AND DECORATIVE SHROUD, IS OR WILL BECOME A STOCK ITEM, READILY AVAILABLE WITH REPLACEMENT PARTS FOR MINIMUM (10) YEAR PERIOD. ALL MATERIAL SUPPLIES SHALL BE WARRANTED BY THE MANUFACTURER FOR ONE (1) YEAR AFTER DELIVERY AGAINST FAULTY MATERIALS AND WORKMANSHIP. THE POLE TOP SHALL BE MECHANICALLY ATTACHED TO THE TOP OF THE POLE SHAFT TO PROVIDE ACCESS FOR WIRING SIGNALS SECURED BY A J-HOOK WIRE SUPPORT. AN OPTIONAL OUTLET FRAME SHALL BE INTEGRALLY WELDED INTO THE POLE SHAFT TO ACCOMMODATE A 20A - 125 V GFCI DUPLEX WEATHERPROOF WHILE IN USE AND PAINTED TO MATCH POLE. THE MAST ARM SHALL BE DRILLED IN THE FIELD 1' FROM REQUIRED SIGNAL LOCATIONS. TWO (2) RUBBER GROMMETS SHALL BE FURNISHED WITH EACH MAST ARM. SIGNAL HANGER CLAMPS SHALL BE SUPPLIED B THE SIGNAL SUPPLIER OR MANUFACTURER, AS REQUIRED. A PERMANENT LEGIBLE MARKING INDICATION SHALL BE INCLUDED ON EACH SIGNAL SUPPORT AND ARM. THE FOLLOWING INDICATION SHALL BE REQUIRED AS A MINIMUM:

A.POLE INDICATIONS: MONTH/DATE OF FABRICATION; POLE GAUGE, BOTTOM DIAMETER; POLE HEIGHT; BOLT CIRCLE; ANCHOR BOLT DIAMETER; FLANGE BOLT DIAMETER; AND INTERSECTION LOCATION INCLUDING CORNER QUADRANT.

B.ARM INDICATIONS: MONTH/DATE OF FABRICATION; ARM GAUGE; ARM DIAMETER; ARM LENGTH; CONNECTING FLANGE BOLT DIAMETER; AND INTERSECTION LOCATION INCLUDING CORNER QUADRANT.

THE ORNAMENTAL BASE SHALL BE UNION METAL BASE NO. 7.31. THE FOUNDATION SURFACE SHALL BE LEVEL IN ORDER TO ACCEPT THE BASE ASSEMBLY. ALL PROPOSED EXTERIOR CONNECTIONS (PEDESTRIAN SIGNAL HEADS, 3CHOOL SPEED LIMIT SIGNS, ETC.) TO NOSTALGIA SIGNAL POLES SHALL BE FIELD DRILLED. BANDING OR STRAPPING ON THE NOSTALGIA SIGNAL POLES SHALL NOT BE PERMITTED.

PERFORMANCE TESTING AND SYSTEM ACCEPTANCE

THE SUPPLIER OF THE CLOSED LOOP SYSTEM EQUIPMENT SHALL SUPPLY ADEQUATE PERSONNEL AND EQUIPMENT, INCLUDING ANY TESTING DEVICES ON SITE TO COMPLETE ALL TESTING PROCEDURES IN A TIMELY MANNER. BENCH MARK TESTING SHALL BE ACCOMPLISHED AT THE CLOSED LOOP SYSTEM SUPPLIER'S FACILITIES. THE PURPOSE OF THE BENCH MARK TESTING IS TO DEMONSTRATE THE CAPABILITIES OF THE CLOSED LOOP SYSTEM WHICH THE SUPPLIER INTENDS TO FURNISH. CLOSED LOOP SYSTEM SHALL BE REQUIRED TO EXHIBIT SATISFACTORY RELIABILITY DURING A TEN (10) CONSECUTIVE DAY, ESSENTIALLY TROUBLE-FREE PERIOD OF OPERATION BEFORE SYSTEM ACCEPTANCE WHICH SHALL BEGIN AFTER THE INSTALLATION OF THE ON-STREET MASTER, LOCAL INTERSECTION CONTROLLERS, DETECTORS AND OTHER REQUIRED EQUIPMENT TO MAKE THE CLOSED LOOP SYSTEM FUNCTION. THE INTENT OF PERFORMANCE TESTING IS TO DEMONSTRATE THAT THE TOTAL CLOSED LOOP SYSTEM IS PROPERLY INSTALLED, IS FREE FROM IDENTIFIED PROBLEMS, COMPLIES WITH THE SPECIFICATIONS AND HAS EXHIBITED A STABLE, RELIABLE PERFORMANCE LEVEL REQUIRED FOR THE CONTROL OF TRAFFIC. DURING THE 10-DAY TEST PERIOD, THE CLOSED LOOP SYSTEM SHALL OPERATE ALL SUSTEM-CONTROLLED INTERSECTION WITH PROGRAM SELECTIONS BY THE ON-STREET MASTER CONTROLLER. IT SHALL BE BASED ON BOTH THE TIME-OF-DAY AND TRAFFIC RESPONSIVE MODES. FAILURE OF ANY HARDWARE ITEM DURING THE 10-DAY TEST PERIOD, WITH THE EXCEPTION OF EXPENDABLE ITEMS SUCH AS SIGNAL LAMPS AND FUSES. SHALL NECESSITATE RESTARTING THE 10-DAY PERIOD FOR ITS FULL 10-DAY DURATION FOR THAT ITEM, AFTER ITS REPAIR

NO INTERMITTENT HARDWARE, SOFTWARE, COMMUNICATION OR CONTROL OPERATION SHALL BE PERMITTED TO PERSIST DURING THE 10-DAY TEST PERIOD. IF SUCH PROBLEMS ARE ENCOUNTERED, THE 10-DAY TEST PERIOD SHALL HALT UNTIL THE PROBLEM IS CORRECTED. SYSTEM ACCEPTANCE SHALL BE GRANTED WHEN THE LEVEL OF PERFORMANCE DEFINED IN THIS SECTION AND IN ALL OTHER SECTIONS OF THE SPECIFICATIONS HAS BEEN REACHED AND ALL OTHER CONTRACTUAL ELEMENTS HAVE BEEN MET. THE COST FOR PERFORMANCE TESTING AND SYSTEM ACCEPTANCE SHALL BE INCIDENTAL TO THE CONTROLLER BID ITEMS (BID ITEMS 633)

SIGNALS:

NOSTALGIA SIGNAL SUPPORT AND PEDESTAL PAINTING NOSTALGIA SIGNAL SUPPORTS, ARMS, AND LUMINAIRE BRACKETS SHALL BE PAINTED (SURFACE PREPARATION, PRIMER APPLICATION, AND FINISH COATING OF GALVANIZED SUBSTRATES). THE FOLLOWING SHALL APPLY:

SURFACE PREPARATION: PRE-CLEAN SUBSTRATES TO SSPC-SP-1 SOLVENT CLEANING SPECIFICATION. PREPARE GALVANIZED SUBSTRATES BY ABRASIVE BLASTING TO SSPC-SP-7 BRUSH-OFF BLAST CLEANING SPECIFICATION.

COLOR: B. THE COLOR OF THE POLES SHALL BE CBD GREEN (COLOR AND FORMULA IS ON FILE AT THE MIDWEST TANK SERVICES CO., INC., CANTON, OH).

MATERIALS: PRIMER-APPLY ONE (1) COAT OF POLYAMIDE UNIVERSAL EPOXY PRIMER-LIGHT GRAY AT A DRY FILM THICKNESS OF 2.0-4.0 MILS. 1ST I NTERMEDIATE-APPLY ONE (1) COAT OF HIGH BUILD EPOXY-BUFF COLOR AT A DRY FILM THICKNESS OF 4.0-8,0 MILES. 2ND INTERMEDIATE-APPLY ONE (1) COAT OF ALIPHATIC ACRYLIC URETHANE-CBD GREEN AT A DRY FILM THICKNESS OF 2.0-3.0 MILS. FINISH-APPLY ONE (1) COAT OF ALIPHATIC URETHANE-CLEAR AT A DRY FILM THICKNESS OF 2.0-3.0 MILS.

APPLICATION: APPLICATION(S) OF COATING(S)SHALL BE SPRAY METHOD ONLY BY INDUSTRY STANDARDS OF GOOD WORKMANSHIP AND PRACTICES.

INSPECTION: INSPECTION OF APPLIED COATINGS SHALL BE IN ACCORDANCE WITH THE SOCIETY FOR PROTECTIVE COATINGS (SSPC) PAINT APPLICATION STANDARD NO. 2: MEASUREMENT OF DRY COATING THICKNESS WITH MAGNETIC GAGES (SSPC-PA2).

WARRANTY: COATINGS MANUFACTURER SHALL PROVIDE A TEN (10) YEAR MATERIALS PERFORMANCE GUARANTEE.

THE COST FOR NOSTALGIA SIGNAL SUPPORT AND PEDESTAL PAINTING SHALL BE INCLUDED IN AND INCIDENTAL TO THE NOSTALGIA SIGNAL SUPPORT AND PEDESTAL BID ITEMS (BID ITEMS 632).

ITEM 632—PEDESTAL, MISC.: NOSTALGIA PEDESTAL — UNION METAL CORPORATION (8' AND 18') NOSTALGIA PEDESTALS SHALL BE PACIFIC FAMILY P2000G SERIES (SEE DETAILS ON PLAN SHEETS 35-39 AND MANUFACTURED BY:

UNION METAL CORPORATION 1432 MAPLE AVENUE N.E. P.O. BOX 9920 CANTON, OH 44711 PHONE: 330-456-7653

E.

THE CONTRACTOR SHALL FURNISH AND INSTALL NOSTALGIA PEDESTALS AS PER PLANS. PEDESTAL SHALL INCLUDE HANDHOLE, CHAIN, AND COVER. ALL HARDWARE SHALL BE INCLUDED WITH THIS ITEM. THE ENTIRE ASSEMBLY SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF AASHTO. A STEEL FABRICATION TENON SHALL BE WELDED TO THE TOP OF THE SHAFT AND SIZED TO ACCEPT PEDESTRIAN SIGNALS AS REQUIRED. THE ORNAMENTAL BASE SHALL BE UNION METAL CORPORATION BASE NO. 74 AND SHALL BE LEVEL IN ORDER TO ACCEPT THE BASE ASSEMBLY AND SHALL BE AT LEAST AS LARGE AS THE BOTTOM DIMENSION OF THE ORNAMENTAL BASE CASTING. ALL PROPOSED EXTERIOR CONNECTIONS (PEDESTRIAN SIGNAL HEADS, SCHOOL SPEED LIMIT SIGNS, ETC.) TO NOSTALGIA SIGNAL POLES SHALL BE FIELD DRILLED. BANDING OR STRAPPING ON THE NOSTALGIA SIGNAL POLES SHALL NOT BE PERMITTED.

ITEM 632-SIGNALIZATION, MISC .: INTERCONNECT COORDINATION THE CONTRACTOR SHALL UPGRADE THE EXISTING SIGNAL CABINET AND EQUIPMENT AS NECESSARY AT THE INTERSECTION OF FULTON ROAD, I.R. 77 OFF RAMP, AND U.S. 62 ON RAMP TO INCLUDE BUT NOT LIMITED TO SYSTEM PANEL, GPS CLOCK SETTER INTERFACE, AND INTERCONNECT TO COORDINATE WITH THE NEW SIGNAL CABINET AT THE INTERSECTION OF FULTON ROAD, STADIUM PARK DRIVE, AND PARK DRIVE.

THE NEW SIGNAL CABINET AT FULTON ROAD, STADIUM PARK DRIVE, AND PARK DRIVE SHALL INCLUDE THE GPS CLOCK AS IT WILL CONTROL COORDINATION BETWEEN THE TWO SIGNALS. THE POWER SERVICE FOR THE INTERSECTIONS SHOULD BE INCLUDED IN THE MILBRANK INSTALLATION.

THE WORK FOR THIS ITEM SHALL BE PERFORMED UNDER THE LUMP SUM BID ITEM AND WILL INCLUDE ALL SUPPORT AND MOUNTING HARDWARE FOR SUCH UPGRADE IMPROVEMENTS, COMPLETELY INSTALLED AT THE LOCATION SHOWN IN THE PLANS, WIRED. TESTED, AND ACCEPTED

ITEM 632-SIGNALIZATION, MISC .: INTERCONNECT COORDINATION LUMP

SIGNALS:

ITEM 633 - CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN

THE CONTROLLER UNITS PROVIDED IN THIS PROJECT SHALL BE NEMA TYPE MANUFACTURED BY:

ECONOLITE CONTROL PRODUCTS 3360 FAST LA PALMA ANAHEIM, CA 92806 PHONE: 800-225-6480

THE CONTROLLER SHALL BE MODEL ASC/2M. THIS ITEM SHALL CONSIST OF FURNISHING AN ACTUATED, SOLID STATE DIGITAL MICROPROCESSOR TYPE CONTROLLER WITH MENU DRIVEN PROMPTS, INTERNAL TBC, FSK TELEMETRY MODULE FOR CLOSED LOOP COMMUNICATIONS AND ALL OTHER ACCESSORIES THAT ARE REQUIRED TO MAKE THE CONTROLLER COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS. MANUFACTURER GUARANTEES OR WARRANTIES ON ALL INSTALLED TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL BE TRANSFERRED TO THE CITY OF CANTON TRAFFIC SIGNAL DEPARTMENT ACCEPTANCE OF THE EQUIPMENT.

THE CONTROLLER ASSEMBLY AND CABINET SHALL INCLUDE A NEMA TS2 TYPE 2 CONTROLLER AND A NEMA TS2 TYPE 16 MALFUNCTION MANAGEMENT UNIT (MMU) COMPLETE IN A NEMA TS1 CABINET ASSEMBLY. IN ADDITION, THE CONTROLLER ASSEMBLY AND CABINET SHALL CONFORM TO ODOT SPECIFICATION 633. THE CONTROLLER SHALL BE CAPABLE OF AN ADDITIONAL 12 STANDARD OVERLAPS BY ASSIGNING EACH PHASE OUTPUT TO AN OVERLAP. THE CONTROLLER SHALL INCLUDE TIME OF DAY AND COORDINATION CAPABILITIES. IN ADDITION, THE CONTROLLER SHALL INCLUDE PREEMPTION CAPABILITIES INCLUDING SIX (6) RAILROAD, FIRE AND EMERGENCY VEHICLE HIGH-PRIORITY PREEMPTORS AND FOUR (4) LOW-PRIORITY BUS PREEMPTORS. CONTROLLER SHALL BE PROGRAMMABLE TO ALLOW FOR FLASHING "DON'T WALK" THROUGH THE YELLOW SIGNAL PHASE. THE CABINET SHALL BE WIRED FOR MONITORING EACH APPROACH SEPARATELY. ALL VEHICLE SIGNAL CIRCUITS SHALL BE ISOLATED (SPLITTING THE HEADS FOR PREEMPTION PURPOSES). THE MMU SHALL PASS ALL TESTS AS PERFORMED BY AN AUTOMATIC MONITOR TESTER. TEST RESULTS SHALL BE PRINTED AND SUPPLIED WITH EACH CABINET. THE POLICE PANEL SHALL HAVE SWITCH ACCESS FOR SIGNAL ON/OFF, FLASH CONTROL, AUTOMATIC/MANUAL TRANSFER AND MANUAL PUSHBUTTON WITH TEN (10) FEEL COILED HAND CORD.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, TESTING, CERTIFICATIONS AND OTHER INCIDENTALS NECESSARY TO FURNISH THE CONTROLLER COMPLETE, INCLUDING ALL CONNECTIONS MADE AND WIRING COMPLETE, TESTED AND ACCEPTED.

TECHNICIAN SWITCH PANEL SHALL BE MOUNTED ON THE INSIDE OF THE MAIN CABINET DOOR AND SHALL HAVE SWITCH ACCESS FOR STOP TIME ON/OFF, FLASH CONTROL, TIMER POWER ON/OFF, DETECTOR TEST, MOMENTARY PUSHBUTTON. THE CABINET SHALL BE ALUMINUM, WITH A NATURAL SATIN FINISH OUTSIDE WITH A PAINTED SEMI-GLOSS WHITE ENAMEL FINISH INSIDE. THE CABINET SHALL COMPLY WITH THE REQUIREMENTS OF 733.03 (SECTION A). THE FAIL CONTACTS OF THE SURGE PROTECTOR SHALL BE WIRED TO AN ALARM INPUT FOR REPORTING A FAILED DEVICE TO A CENTRAL COMPUTER. WIRE CONNECTIONS TO THE BACKPANEL SHALL BE MADE WITH CRIMP TERMINALS AND THREADED FASTENERS. SOLDER CONNECTIONS MAY BE USED ON THE BACKSIDE OF A PANEL THAT UTILIZES FEED-THROUGH STYLE TERMINAL BLOCKS. PRINTED CIRCUIT BOARDS SHALL NOT BE USED ON ANY PART OF THE TERMINALS AND FACILITIES PROVIDED WITHIN THE CABINET. ALL WIRES FASTENED TO THE LOAD SWITCH, FLASHER AND FLASH TRANSFER RELAY SOCKETS SHALL BE SOLDERED IN PLACE. A GOOD MECHANICAL CONNECTION MUST BE MADE PRIOR TO SOLDERING. ALL WIRING OF HARNESSES AND INTER-PANEL WIRING, INCLUDING WIRING TO THE POLICE PANEL SHALL BE PROTECTED WITH A NYLON MESH OR "SNAKE SKIN". ANY EXPOSED WIRES OR THE USE OF CABLE TIES TO HOLD THE WIRE BUNDLES TOGETHER SHALL NOT BE ALLOWED. FOR EASE OF MAINTENANCE, ALL HARNESSES SHALL BE OF SUFFICIENT LENGTH TO PLACE THE EQUIPMENT ON TOP OF THE CABINET AND BE OPERATIONAL.

SIGNALS:

ITEM 633 - CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN

THE CONTRACTOR SHALL VERIFY THE SIZES OF ALL EXISTING FOUNDATIONS THAT ARE TO BE REUSED PRIOR TO ORDERING THE CABINETS.

A COLOR-CODED WIRING SYSTEM SHALL BE USED THROUGHOUT THE WIRING OF THE CABINET. ALL SYSTEMS FUNCTIONS OF THE CONTROLLER SHALL BE TERMINATED ON A SINGLE PANEL. WIRING COLOR-CODE SHALL BE AS FOLLOWS:

A. BLUE CONTROLLER UNIT

VIOLET В. MMU

RED RED LOAD SWITCH OUTPUT C.

YELLOW LOAD SWITCH OUTPUT YELLOW D.

E. BROWN GREEN LOAD SWITCH OUTPUT F. BLACK AC LINE POWER

AC NEUTRAL WHITE G.

EARTH GROUND H. GREEN

LOGIC GROUND GRAY

ORANGE FLASH PROGRAMMING

ADDITIONAL CABINET ATTACHMENT HARDWARE SHALL INCLUDE FOUR (4) INCH ALUMINUM CONDUIT WITH COVER AND NEOPRENE GASKET. OTHER MOUNTING HARDWARE SHALL INCLUDE THE NECESSARY BOLTS, ALUMINUM BRACKETS, CLAMPS AND STAINLESS STEEL BANDING WITH FOUR (4) INCH X CLOSE NIPPLES (QUANTITY: 2 PER CABINET), FOUR (4) INCH LOCKING RINGS (QUANTITY: 4 PER CABINET), AND FOUR (4) INCH BUSHINGS (QUANTITY: 1 PER CABINET). THE COST FOR THIS ADDITIONAL CABINET ATTACHMENT SHALL BE INCIDENTAL TO THE COST OF THE CABINET. TWO (2) SETS OF CABINET WIRING DIAGRAMS, SERVICE MANUALS, PROGRAMMING AND MAINTENANCE INSTRUCTIONS SHALL BE FURNISHED FOR EACH CABINET AND EQUIPMENT ITEM. THE CABINET WIRING DIAGRAMS SHALL BE SUPPLIED IN A CLEAR PLASTIC POUCH FASTENED TO THE INSIDE OF THE CONTROLLER CABINET. AN ADDITIONAL FOUR (4) CONTROLLER UNIT ASSEMBLIES WITH CABINETS, SUBJECT TO ALL OF THESE SPECIFICATIONS, SHALL BE SUPPLIED AS SPARES UNDER BID ITEM 633 "CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN.

ITEM 633-CONTROLLER ITEM, MISC.; PREEMPTION DETECTOR CABLE THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING PREEMPTION DETECTOR HOME RUN CABLE IN THE LOCATIONS SHOWN IN THE PLANS. IT SHALL CONNECT THE PREEMPT RECEIVING UNITS TO THE PHASE SELECTORS IN THE LOCAL CONTROLLER CABINET

PREEMPTION DETECTOR CABLE SHALL BE NO. 20 AWG SHIELDED, 300 VOLT, TYPE PLTC, 2 CONDUCTOR CABLE IN ACCORDANCE WITH IMSA 50-2. PRE-EMPTION DETECTOR CABLE SHALL BE APPROVED FOR BOTH OVERHEAD AND UNDERGROUND USE. THE JACKET SHALL WITHSTAND EXPOSURE TO SUNLIGHT AND ATMOSPHERIC TEMPERATURES AND STRESSES EXPECTED IN NORMAL INSTALLATIONS.

PREEMPTION DETECTOR CABLE SHALL CONFORM TO ODOT SPECIFICATION 632. ONLY ONE EXTERNAL SPLICE SHALL BE PERMITTED BETWEEN PREEMPTION RECEIVER UNIT AND CONTROLLER CABINET. THIS SPLICE SHALL MEET THE REQUIREMENTS OF C&MS 632.23 USING A WATERPROOF EPOXY SPLICE KIT. THE CABLE SHALL BE APPROVED FOR BOTH OVERHEAD AND UNDERGROUND USE. THE JACKET SHALL WITHSTAND EXPOSURE TO SUNLIGHT AND ATMOSPHERIC TEMPERATURES AND STRESSES REASONABLY EXPECTED IN NORMAL INSTALLATIONS.

PAYMENT FOR ITEM 633 "CONTROLLER, MISC.; PREEMPTION DETECTOR CABLE" SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR THE CABLE FURNISHED, IN PLACE, ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

FOR PROPOSED SIGNAL AT FULTON ROAD, STADIUM PARK DRIVE, AND PARK DRIVE: ITEM 633-CONTROLLER, MISC.: PREEMPTION DETECTOR CABLE 794 FT.

FOR EXISTING SIGNAL AT FULTON ROAD, I.R. 77 OFF RAMP, AND U.S. 62 ON RAMP: ITEM 633-CONTROLLER, MISC.: PREEMPTION DETECTOR CABLE 285 FT.

ITEM 633-CONTROLLER ITEM, MISC.; PREEMPTION

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING PREEMPTION EQUIPMENT IN THE LOCATIONS AND LOCAL CONTROLLERS AS SHOWN IN THE PLANS. THE PREEMPTION SHALL CONFORM TO ODOT SPECIFICATION 633 AND SHALL UTILIZE COMMUNICATIONS TO IDENTIFY THE PRESENCE OF AN EMERGENCY PRIORITY VEHICLE. IT SHALL CAUSE THE TRAFFIC SIGNAL CONTROLLER TO SELECT A PRE—PROGRAMMED PREEMPTION PLAN THAT WILL DISPLAY AND HOLD THE DESIRED SIGNAL PHASE FOR THE DIRECTION OF THE EMERGENCY VEHICLE.

THE COMMUNICATIONS MEDIUM SHALL EMPLOY EITHER SOUND DETECTION TECHNIQUES TO DETERMINE AND LOG THE PRESENCE OF THE EMERGENCY VEHICLE. OTHER TYPES OF PRE-EMPTION SYSTEMS SHALL NOT BE PERMITTED. THE SYSTEM SHALL DETECT THE PRESENCE OF THE VEHICLE THROUGH AN EMITTING DEVICE LOCATED ON THE EMERGENCY VEHICLE. THE SYSTEM SHALL ACTIVATE THE PREEMPTION SEQUENCE BY APPLYING A SIGNAL TO ONE OF THE CONTROLLER'S PREEMPT DISCREET INPUTS. THE SYSTEM SHALL BE COMPLETELY COMPATIBLE WITH THE NEMA CONTROLLER.

PREEMPTION DETECTORS SHALL BE BLACK IN COLOR AND CONSIST OF A LIGHT WEIGHT, WEATHERPROOF AND DIRECTIONAL ASSEMBLY. EACH DETECTOR SHALL BE 360 DEGREE ADJUSTABLE. PREEMPTION DETECTORS SHALL HAVE INTERNAL CIRCUITRY TO SEND THE PROPER ELECTRICAL SIGNAL TO THE PREEMPTION PHASE SELECTOR ASSEMBLY VIA THE PREEMPTION DETECTOR CABLE. PREEMPTION DETECTORS SHALL BE SUPPLIED WITH MAST ARM AND SPAIN WIRE MOUNTING HARDWARE WHICH INCLUDE STAINLESS STEEL BANDING, BOLTS WASHERS AND BRACKETS AS APPROVED BY ODOT.

THE EQUIPMENT SHALL BE SHELF OR RACK MOUNTED AND EASILY REMOVABLE OR REPLACEABLE WITHIN THE CABINET. THE EQUIPMENT SHALL BE SUPPLIED COMPLETELY WIRED IN THE CONTROLLER CABINET AND TESTED. THE SYSTEM SHALL BE CAPABLE OF PREEMPTION AND RECEIVING PRIORITY FOR EACH APPROACH TO THE INTERSECTION. IT SHALL BE POSSIBLE TO DETECT THE EMERGENCY VEHICLE UP TO 1200 FEET FROM THE INTERSECTION.

EACH INTERSECTION SHOWN IN THE PLANS SHALL BE SUPPLIED WITH THE FOLLOWING COMPONENTS, EACH BID SEPARATELY:

- 1. PREEMPT RECEIVING UNIT
- 2. PREEMPT DETECTOR CABLE
- 3. PREEMPT PHASE SELECTOR ASSEMBLY AND INTERFACE WIRING PANEL

THE CITY SHALL BE SUPPLIED WITH SOFTWARE REQUIRED TO CALIBRATE, LOG AND OPERATE THE SYSTEM. THE SOFTWARE SHALL BE CAPABLE OF OPERATING ON AN IBM OR IBM COMPATIBLE PERSONAL COMPUTER. TWO (2) OPERATING AND INSTRUCTION MANUALS SHALL BE SUPPLIED WITH THE SOFTWARE.

THE CONTRACTOR SHALL THOROUGHLY TEST THE INSTALLED SYSTEM. AS A MINIMUM, THE CONTRACTOR SHALL VERIFY THAT ALL CONNECTIONS ARE PROPERLY MADE TO THE CONTROLLER CABINETS. THE CONTRACTOR SHALL CHECK THAT THE RANGE SETTING IS PROPER FOR EACH INTERSECTION. THE CONTRACTOR SHALL DETERMINE THAT ALL PHASE SELECTORS ARE SELECTING THE PROPER PHASE AND TIMING ACCURATELY. THE CONTRACTOR SHALL VERIFY THAT ALL VEHICLE EMITTERS ARE BEING PROPERLY DETECTED.

IF THE PROPOSED PREEMPT SYSTEM IS NOT COMPATIBLE WITH THE EXISTING SYSTEM, THE CONTRACTOR SHALL PROVIDE TRAINING FOR UP TO FIFTEEN (15) PERSONS IN THE OPERATION OF THE SYSTEM. IF IT SHALL BE PROVIDED WITHIN 48 HOURS OF THE INSTALLATION OF THE SYSTEM. IF SHALL CONSIST OF HANDS—ON INSTRUCTION FOR A MINIMUM OF SIXTEEN (16) HOURS. THE CONTRACTOR SHALL PROVIDE TRAINING FOR UP TO FOUR (4) PERSONS IN THE INSTALLATION AND MAINTENANCE OF THE SYSTEM. IT SHALL CONSIST OF A MINIMUM OF EIGHT (8) HOURS OF INSTRUCTION. TRAINING SHALL BE SUPPLIED WITHIN SEVEN (7) DAYS OF THE INSTALLATION OF THE SYSTEM. ALL TRAINING SHALL BE HELD IN A CITY SUPPLIED LOCATION. TRAINING SHALL BE CONDUCTED BY SOMEONE WHO HAS PERFORMED THIS WITHIN THE LAST YEAR AND DOES IT ON A REGULAR BASIS. THE COST OF TRAINING, INCLUDING COURSE MATERIAL, TRAVEL SUBSISTENCE AND RELATED COSTS, SHALL BE ENTIRELY BORNE BY THE CONTRACTOR AND SHALL BE INCIDENTAL TO THE PREEMPTION EQUIPMENT.

PAYMENT FOR ITEM 633 "CONTROLLER, MISC.; PREEMPTION" SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH PREEMPTION IN PLACE AND FULLY OPERATIONAL AS SHOWN IN THE PLANS, EXCEPT FOR THOSE ITEMS BID SEPARATELY.

FOR PROPOSED SIGNAL AT FULTON ROAD, STADIUM PARK DRIVE, AND PARK DRIVE: ITEM 633—CONTROLLER, MISC.: PREEMPTION 1_EACH

FOR EXISTING SIGNAL AT FULTON ROAD, I.R. 77 OFF RAMP, AND U.S. 62 ON RAMPITEM 633-CONTROLLER, MISC.: PREEMPTION 1_EACH

SIGNALS:

ITEM 633—CONTROLLER ITEM, MISC.; PREEMPTION RECEIVING UNIT RECEIVING UNITS SHALL CONSIST OF A LIGHTWEIGHT, WEATHERPROOF AND DIRECTIONAL ASSEMBLY. EACH RECEIVING UNIT SHALL BE 360 DEGREE ADJUSTABLE. THE RECEIVING UNIT SHALL BE CAPABLE OF SENDING THE PROPER ELECTRICAL SIGNAL TO THE TRAFFIC SIGNAL CONTROLLER WAS THE PREEMPTION DETECTOR CABLE. RECEIVING UNITS SHALL BE SUPPLIED WITH MAST ARM AND SPAN WIRE MOUNTING HARDWARE AS SHOWN IN THE PLANS.

FURNISH PREEMPTION RECEINING UNITS WITH 60—MONTH WARRANTIES OR FOR THE MANUFACTURER'S STANDARD WARRANTY WHICHEVER IS GREATER. ENSURE THAT THE WARRANTY PERIOD BEGINS ON THE DATE OF SHIPMENT TO THE PROJECT. ENSURE THAT EACH UNIT HAS A PERMANENT LABEL OR STAMP INDICATING THE DATE OF SHIPMENT.

PAYMENT FOR ITEM 633 "CONTROLLER, MISC.; PREEMPTION RECEINING UNIT" SHALL BE AT THE CONTRACT UNIT FOR EACH RECEINING UNIT IN PLACE, COMPLETELY INSTALLED AT THE LOCATION SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

FOR PROPOSED SIGNAL AT FULTON ROAD, STADIUM PARK DRIVE, AND PARK DRIVE: ITEM 633—CONTROLLER, MISC.: PREEMPTION RECEIVING UNIT 4 EACH

FOR EXISTING SIGNAL AT FULTON ROAD, I.R. 77 OFF RAMP, AND U.S. 62 ON RAMP: ITEM 633—CONTROLLER, MISC.: PREEMPTION RECEMING UNIT <u>3 EACH</u>

ITEM 633—CONTROLLER ITEM, MISC.; PREEMPT PHASE SELECTOR
THS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING PREEMPT PHASE SELECTORS INCLUDING
WRING INTERFACE PANELS IN THE LOCAL CONTROLLER CABINET AND ALL OTHER ACCESSORIES THAT
ARE NECESSARY TO MAKE THE PREEMPT PHASE SELECTORS COMPLETELY FUNCTIONAL AND OPERATIONAL
AS SHOWN IN THE PLANS. THIS ITEM SHALL INCLUDE THE EXTRA CABINET SPACE NECESSARY TO BE
LOCATED IN THE LOCAL CONTROLLER CABINETS WHERE INDICATED IN THE PLANS.

THE PHASE SELECTORS SHALL CONSIST OF A MODULE OR MODULES THAT WILL PROVIDE THE NECESSARY INPUTS TO THE CONTROLLER. PHASE SELECTORS SHALL BE SUPPLIED WITH SUFFICIENT QUANTITIES OF CHANNELS TO PROVIDE PREEMPTION FOR ALL APPROACHES TO THE INTERSECTION SEPARATELY. POWER SHALL BE OBTAINED FROM THE PHASE SELECTOR OR PHASE SELECTOR POWER SUPPLY AND NOT FROM THE LOCAL CONTROLLER TIMER.

THE PHASE SELECTORS SHALL HAVE FRONT PANEL INDICATORS FOR ACTIVE PREEMPT CHANNEL STATUS. IT SHALL HAVE TEST SWITCHES TO ACTIVATE ALL PREEMPT CHANNELS.

FURNISH PREEMPT PHASE SELECTORS WITH 60—MONTH WARRANTIES OR FOR THE MANUFACTURER'S STANDARD WARRANTY WHICHEVER IS GREATER. ENSURE THAT THE WARRANTY PERIOD BEGINS ON THE DATE OF SHIPMENT TO THE PROJECT. ENSURE THAT EACH UNIT HAS A PERMANENT LABEL OR STAMP INDICATING THE DATE OF SHIPMENT.

PAYMENT FOR ITEM 633 "CONTROLLER, MISC., PREEMPT PHASE SELECTOR" SHALL 5E MADE AT THE CONTRACT UNIT PRICE FOR EACH PHASE SELECTOR IN PLACE, COMPLETELY INSTALLED IN THE LOCAL CONTROLLER SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

- FOR PROPOSED SIGNAL AT FULTON ROAD, STADIUM PARK DRIVE, AND PARK DRIVE:

 1TEM 633—CONTROLLER, MISC.: PREEMPT PHASE SELECTOR 1 EACH
- FOR EXISTING SIGNAL AT FULTON ROAD, I.R. 77 OFF RAMP, AND U.S. 62 ON RAMP:

 ITEM 633—CONTROLLER, MISC.: PREEMPT PHASE SELECTOR 1 EACH

SIGNALS:

ITEM 816-VIDEO DETECTION SYSTEM. AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A VIDEO
DETECTION SYSTEM CAPABLE OF INTERSECTION DETECTION CONTROL, FREEWAY
MANAGEMENT DETECTION, INCIDENT VERIFICATION, TRAFFIC SURVEY DATA COLLECTION
AND TEMPORARY DETECTION DURING CONSTRUCTION. REAL—TIME POLLING, DIAL—OUT
OR STORED TRAFFIC DATA TO INCLUDE: VOLUME, OCCUPANCY, SPEED, DENSITY,
HEADWAY AND 5 VEHICLE CLASSIFICATIONS EITHER BY PHASE OR PROGRAMMED TIMED
INTERVALS RANGING FROM 1 SECOND TO 60 MINUTES. EXTENSIVE BOOLEAN LOGIC
CAPABILITIES SHALL BE PROVIDED FOR FLEXIBLE DETECTIOR LAYOUTS AND CAN BE
USED TO HELP VALIDATE AN EVENT OR INCIDENT. THE DETECTION SYSTEM SHALL
INCLUDE THE FOLLOWING LIST OF FEATURES AND CAPABILITIES:

PROVIDE A DETECTION SYSTEM THAT INCLUDES AN INTEGRATED COLOR CAMERA, 22X CONTINUOUS FOCUS LENS, AND MACHINE VISION PROCESSOR IN ONE UNIT. THE CAMERA SHALL BE IP ADDRESSABLE, SHALL INCORPORATE A WEB SERVER INTERFACE FOR EASY SETUP AND PROVIDE MPEGA STREAMING VIDEO OUTPUT.

PROVIDE A SYSTEM THAT INCORPORATES SIMPLE SETUP AND CONFIGURATION OF THE INTERSECTION STOP BAR DETECTION APPLICATIONS WITH MINIMAL NUMBER OF DETAILED STEP—BY—STEP INSTRUCTIONS.

PROVIDE A COMMUNICATIONS INTERFACE THAT FULLY SUPPORTS AN ETHERNET IEEE 802.3 COMPLIANT 10/100BASE T AUTO SENSING PORT FOR ADVANCED SYSTEMS COMMUNICATIONS. THE ETHERNET PORT SHALL PROVIDE AN UPSTREAM CONNECTION TO OTHER ETHERNET DEVICES IN THE CABINET. AN INDUSTRY STANDARDRJ-45 TYPE CONNECTOR SHALL BE INCLUDED THAT SUPPORTS A SIMPLE CATSE PATCH CABLE INTERFACE. THE ETHERNET PORT SHALL SUPPORT HIGH SPEED SERIAL COMMUNICATIONS UP TO 230,400 BPS. THE ETHERNET PORT SHALL BE CONFIGURED USING A STATIC IP OR DHCP AND SHALL FACTORY PRE—CONFIGURED WITH A PRIVATE IP ADDRESS AND CALLS C SUBNET MASK.

PROVIDE A DETECTOR STATION THAT COLLECTS AND REPORTS TRAFFIC DATA GATHERED OVER SPECIFIC TIME INTERVALS.

PROVIDE A VIDEO DETECTION SYSTEM THAT INSTALLS WITH ONLY 3-WIRES FROM THE INTERFACE PANEL TO EACH CAMERA THAT COMBINES STATE-OF-THE-ART ADVANCES IN DIGITAL IMAGE SIGNAL PROCESSING AND BROADBAND COMMUNICATIONS

PROVIDE A VIDEO DETECTION SYSTEM THAT ALLOWS THE USER TO UPDATE THE EMBEDDED SOFTWARE WITH A NEW SOFTWARE RELEASE AND INTERACT WITH A PC CLIENT/SERVER APPLICATION FOR ALL OF THE VARIOUS DETECTION REQUESTS THAT ARE SUPPORT BY THE SENSOR.

PROVIDE A CAMERA AND PROCESSOR THAT WILL CONSUME A MAXIMUM OF 15 WATTS INCLUDING A THERMOSTATICALLY CONTROLLED FACEPLATE HEATER.

THE DETECTOR SYSTEM SHALL MAINTAIN A NON-VOLATILE OPERATIONS LOG WHICH MINIMALLY CONTAINS: REVISION NUMBERS FOR THE CURRENT DETECTOR HARDWARE AND SOFTWARE COMPONENTS IN OPERATION; TITLE AND COMMENTS FOR THE DETECTOR CONFIGURATION; DATE AND TIME THE LAST DETECTOR CONFIGURATION WAS DOWNLOADED TO THE SENSOR; DATE AND TIME THE OPERATION LOG WAS LAST CLEARED; DATE AND TIME COMMUNICATIONS WERE OPENED OR CLOSED WITH THE SENSOR; DATE AND TIME OF THE LAST POWER-UP; AND TIME-STAMPED, SELF-DIAGNOSED HARDWIRE AND SOFTWARE ERRORS THAT AID IN SYSTEM MAINTENANCE AND TROUBLESHOOTING.

PROVIDE A VIDEO DETECTION SYSTEM THAT WILL ALLOW FOR COMPLETE CONTROL OF THE SENSORS, DETECTION PROGRAMMING, ZOOM CAPABILITIES, AND VIEWING A LIVE VIDEO IMAGE.

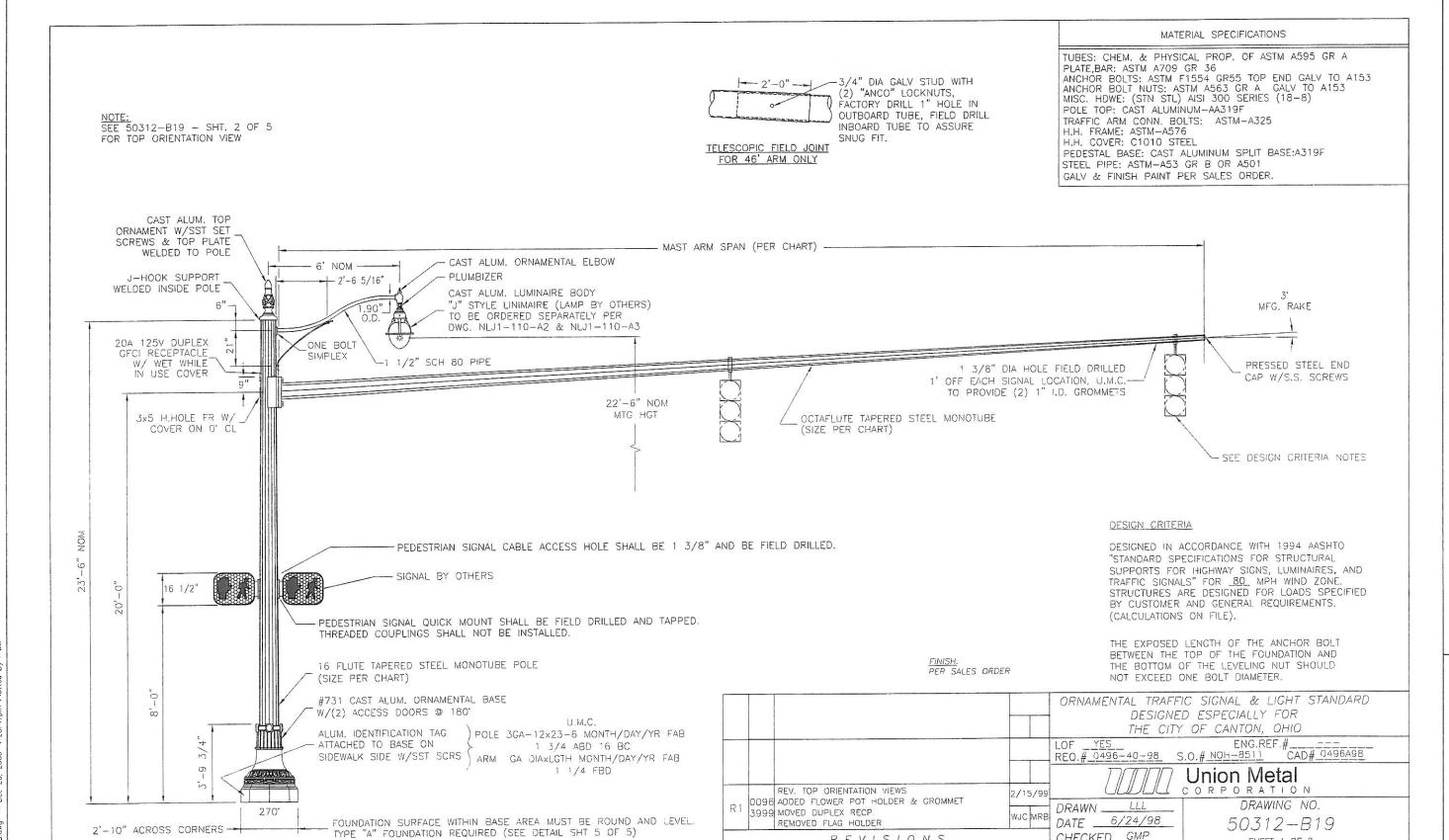
PROVIDE A VIDEO DETECTION SYSTEM THAT INCORPORATES A VIDEO SERVER THAT CONNECTS DIRECTLY TO A 10/100BT ETHERNET NETWORK AND ACCOMMODATES ALL MPEG4 VIDEO STREAMS UP TO 5 MB/SECOND. ALL VIDEO DETECTION SENSORS SHALL BE CONNECTED TO NETWORK FOR REMOTE VIEWING AND MONITORING.

PROVIDE AND INSTALL IN THE CABINET AN INTERFACE PANEL (ATIP) THAT SUPPORTS 3—WIRE BRANCH CABLE CONNECTIONS TO EACH SENSOR, THE PANEL SHALL SUPPORT AND INTERFACE UP TO 8 IMAGE SENSORS VIA BROADBAND OVER POWER (BoP) TECHNOLOGY.

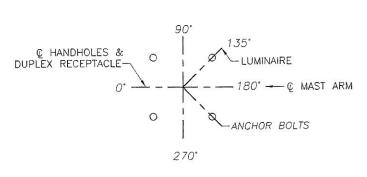
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SHEET 1 OF 2

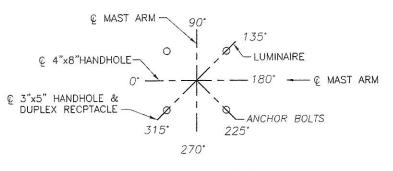
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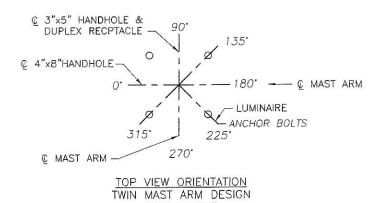




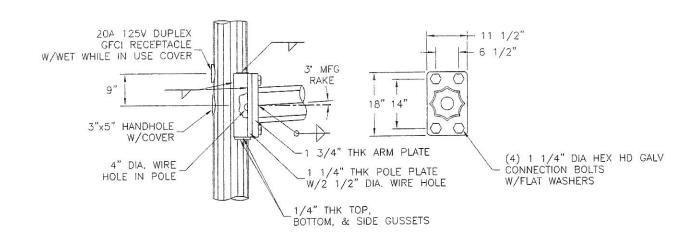
TOP VIEW ORIENTATION SINGLE MAST ARMPOLES



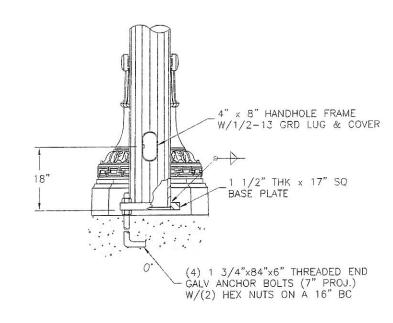
TOP VIEW ORIENTATION
TWIN MAST ARM DESIGNS 50312-Y99 THRU -Y102



50312-Y103



ARM CONNECTION DETAIL SINGLE ARM CONNECTION SHOWN

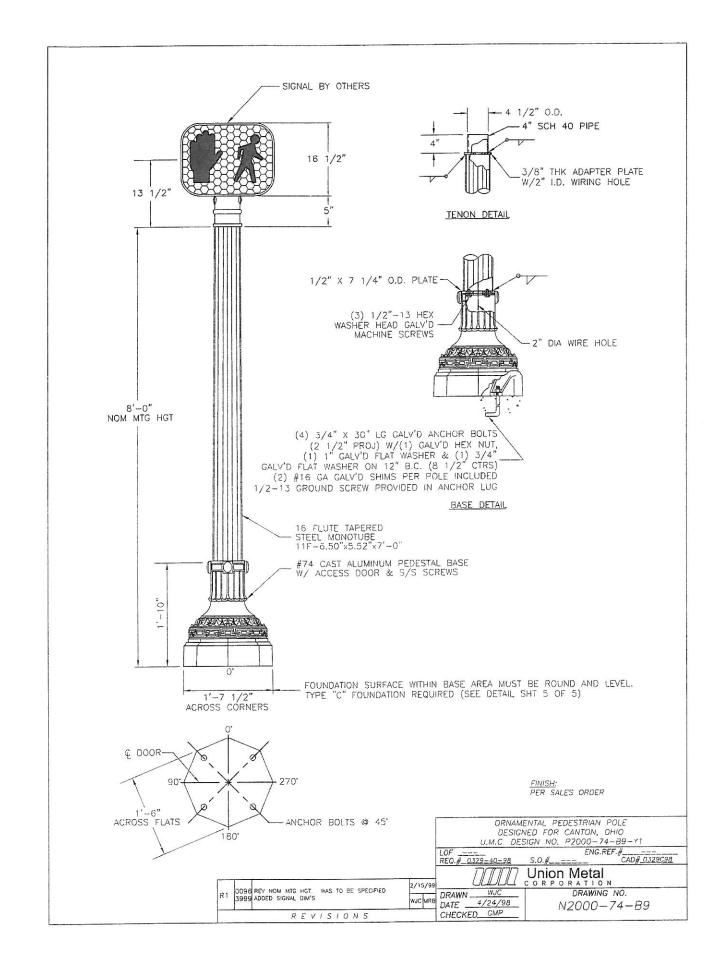


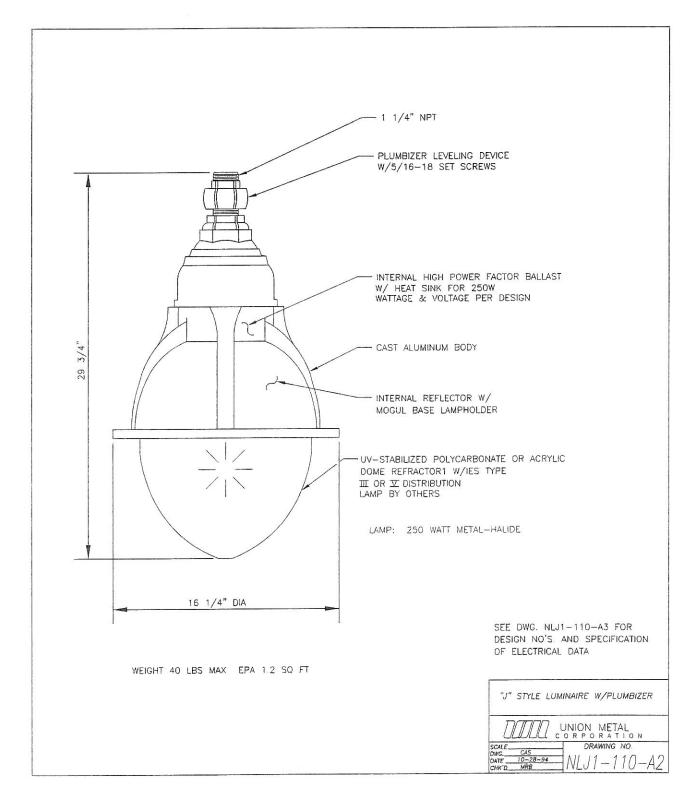
BASE DETAIL

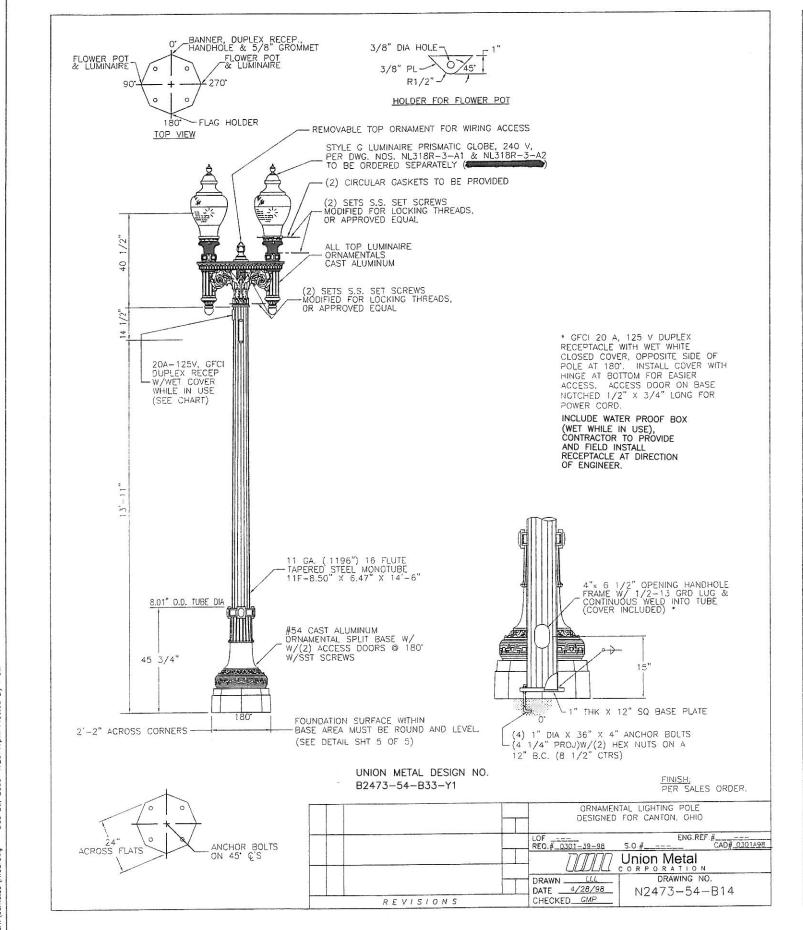
FINISH: PER SALES ORDER

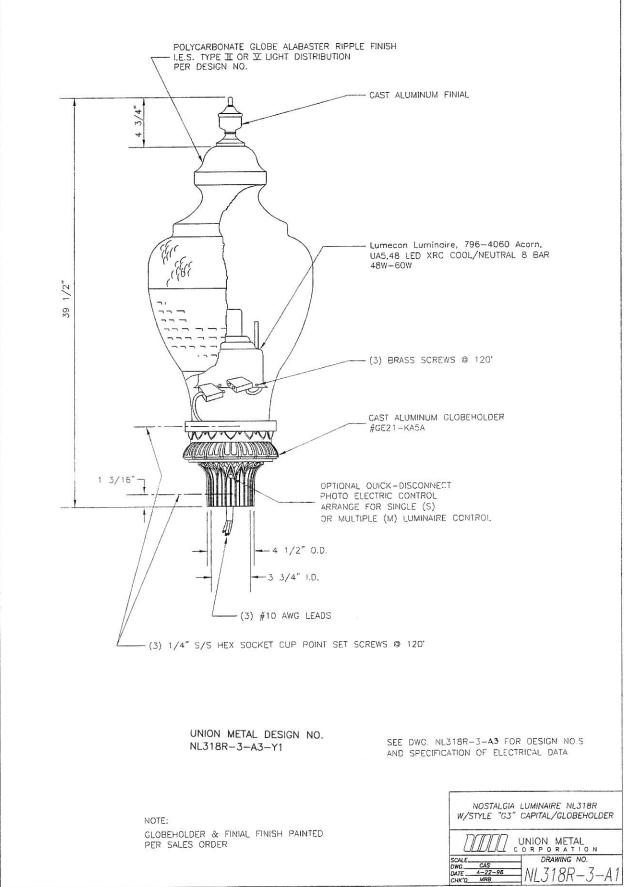
| | ORNAMENTAL TRAFFIC SIGNAL & LIGHT STANDARD DESIGNED ESPECIALLY FOR THE CITY OF CANTON, OHIO |
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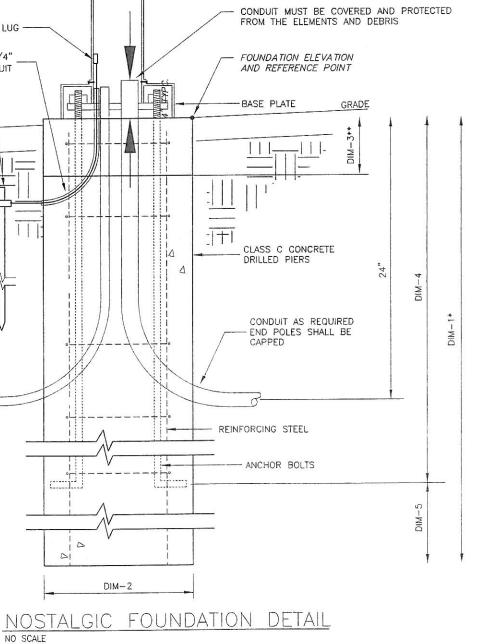








38 53



1. ALL FOUNDATIONS SHALL BE DRILLED PIERS TO AVOID DISTURBING SURROUNDING SOIL. A TEMPORARY STEEL CASING MAY BE REQUIRED. IF UTILITIES OR ANOTHER CONFLICT IS IN CLOSE PROXIMITY TO THE FOUNDATION, THEN THOSE FOUNDATIONS MAY HAVE TO BE EXCAVATED BY HAND.

DIM-2

- 2. ANCHOR BOLT PATTERN SHALL BE PROVIDED BY POLE MANUFACTURER (U.M.C.).
- 3. REINFORCING STEEL SHALL BE ASSEMBLED IN CAGES USING #4 TIES.

GROUND LUG -

CONDUIT

#6 IN 3/4"

1" X 10'-0"

GROUND ROD

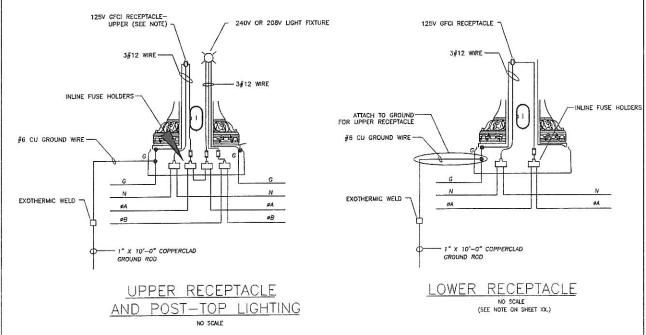
COPPER CLAD STEEL

- 4. FOUNDATION TOP SHALL BE ROUND AND LEVEL FOR DECORATIVE HOUSING.
- * MININUM DEPTH MAY VERY BASED ON SOIL CONDITION.
- ** ONLY APPLICABLE IN SIDEWALK AREAS.
 - A. TUBE TO BE PLACED W/TOP AT LEAST 1" ABOVE PROJECTED FINISHED SIDEWALK GRADE.

D

- B. FOUNDATION TO BE POURED TO A MIN. 8" BELOW PROJECT FINISHED SIDEWALK GRADE.
- C. ONCE SIDEWALK IS PROVIDED AND/OR FINAL FINISHED GRADE ESTABLISHED, TUBE SHALL BE CUT TO PROPER ELEVATION AND FOUNDATION CAP POURED AND LEVELED WITHIN THE TUBE.
 - 1. CUT AND REMOVE EXPOSED TUBE TO FINISHED GRADE AFTER CONCRETE IS CURED.

| FOUNDATION | DIM-1* | DIM-2 | DIM-3** | DIM-4 | DIM-5 |
|------------|--------|-------|---------|-------|-------|
| SIGNAL | 9'-0" | 36" | N/A | 84" | 24" |
| LUMINARIES | 6'-0" | 30" | 8" | 32" | 40" |
| PEDESTRIAN | 4'-0" | 24" | 8" | 30" | 18" |

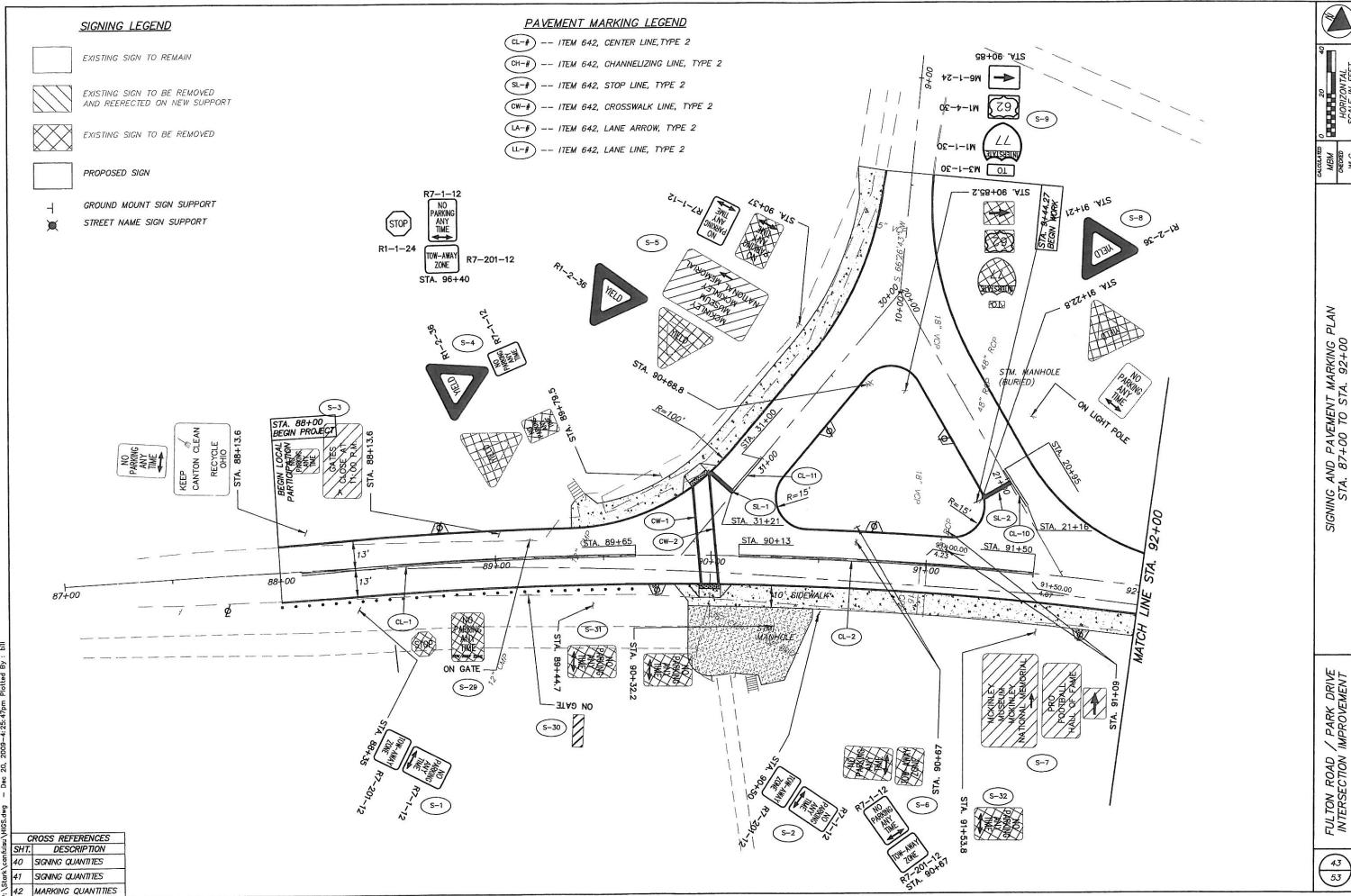


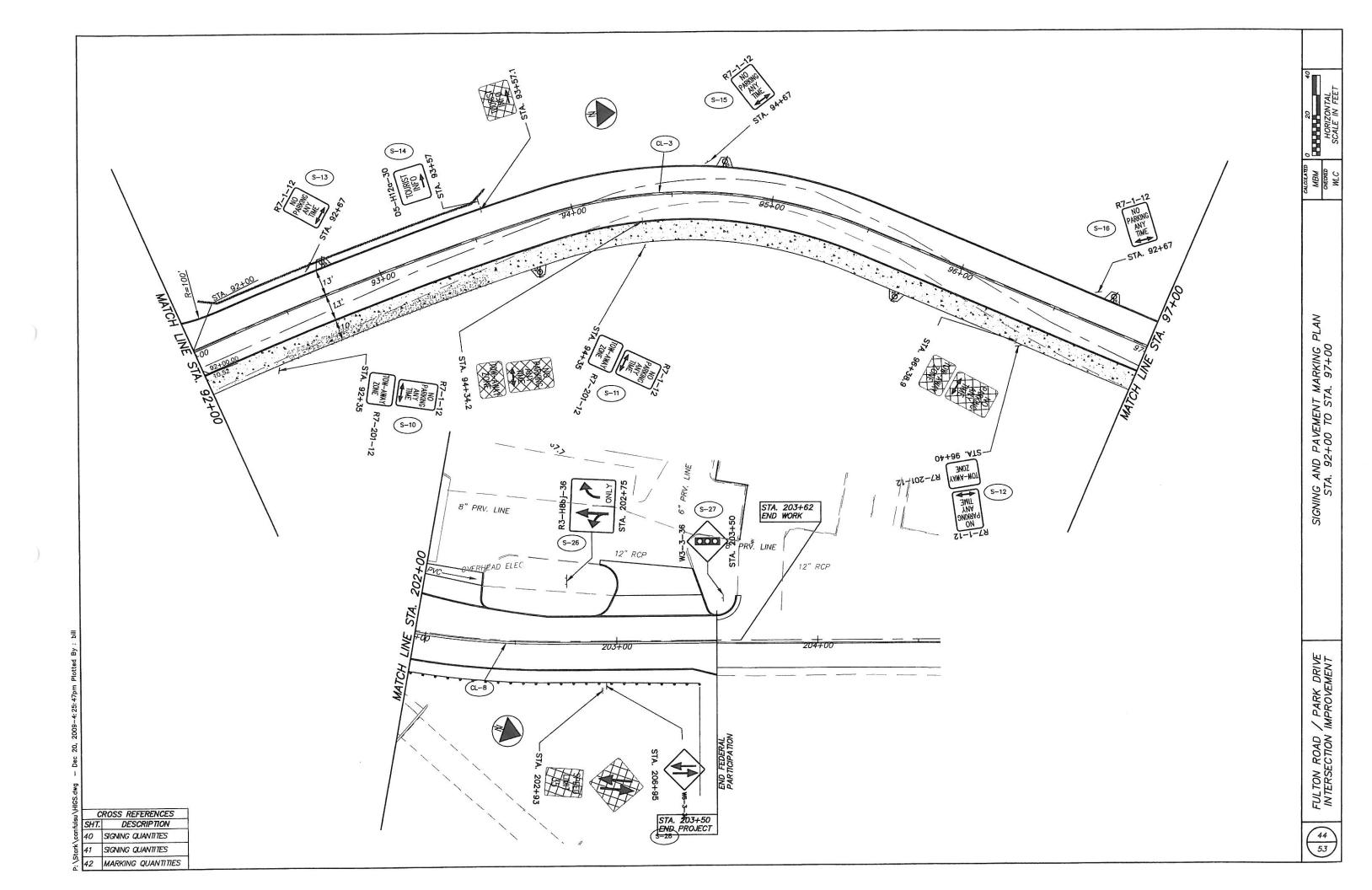
- 1. THE COST FOR WIRING TO ALL NOSTALGIA LUMINARIES AND RECEPTACLES SHALL BE INCIDENTAL TO THE NOSTALGIA BID ITEMS. ALL WIRING IN POLES AND CONDUITS TO LIGHTS AND RECEPTACLES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 2. ALL WIRING INTO EACH NOSTALGIA POLE BASE SHALL BE NO. 4 AWG WIRE AND CONNECTED TO IN-LINE FUSE HOLDERS. THE COST FOR THIS WIRE SHALL BE INCIDENTAL TO THE NOSTALGIA BID ITEMS.
- 3. IN-LINE FUSE HOLDERS SHALL BE BUSSMAN (HEB-AW-RYC). INSTALL FUSES IN PHASE LINES AND SOLID LINK IN NEUTRAL (HET-AW-RYC) FOR GROUND USE SPLIT BOLT CONNECTOR. COPPER GROUND CABLE SHALL BE EXOTHERMICALLY WELDED TO THE GROUND ROD. RUN CABLE FREE END THROUGH 3/4" EMT AND CONNECTED AS SHOWN IN THE POLE WIRING DIAGRAM. THE COST FOR THE IN-LINE FUSE HOLDERS AND ALL RELATED ITEMS SHALL BE INCIDENTAL TO THE NOSTALGIA BID ITEMS.
- 4. THE UPPER POLE RECEPTACLE SHALL BE ALTERNATELY WIRED TO PHASE A AND PHASE B AS SHOWN IN THE POLE WIRING DIAGRAM.
- 5. FOR LIGHTS, USE 5 AMP FUSES. FOR RECEPTACLES, USE 20 AMP FUSES. AMP RATINGS SHALL BE BASED UPON 75 DEGREE C RATINGS.
- 6. UNLESS OTHERWISE NOTED IN THESE PLANS, ALL WIRING SHALL BE MINIMUM NO. 12 AWG, COPPER, 600 VOLT RATED WITH THE EXCEPTION OF NO. 14 AWG, COPPER SHALL BE PERMISSIBLE FOR CONTROL CIRCUITRY. THE FOLLOWING SHALL APPLY TO ALL WIRING:
- A. ALL POLE WIRING SHALL BE STRANDED "THHN/THWN".
- B. UNDERGROUND BRANCH CIRCUIT WIRING SHALL BE STRANDED "XHHW"

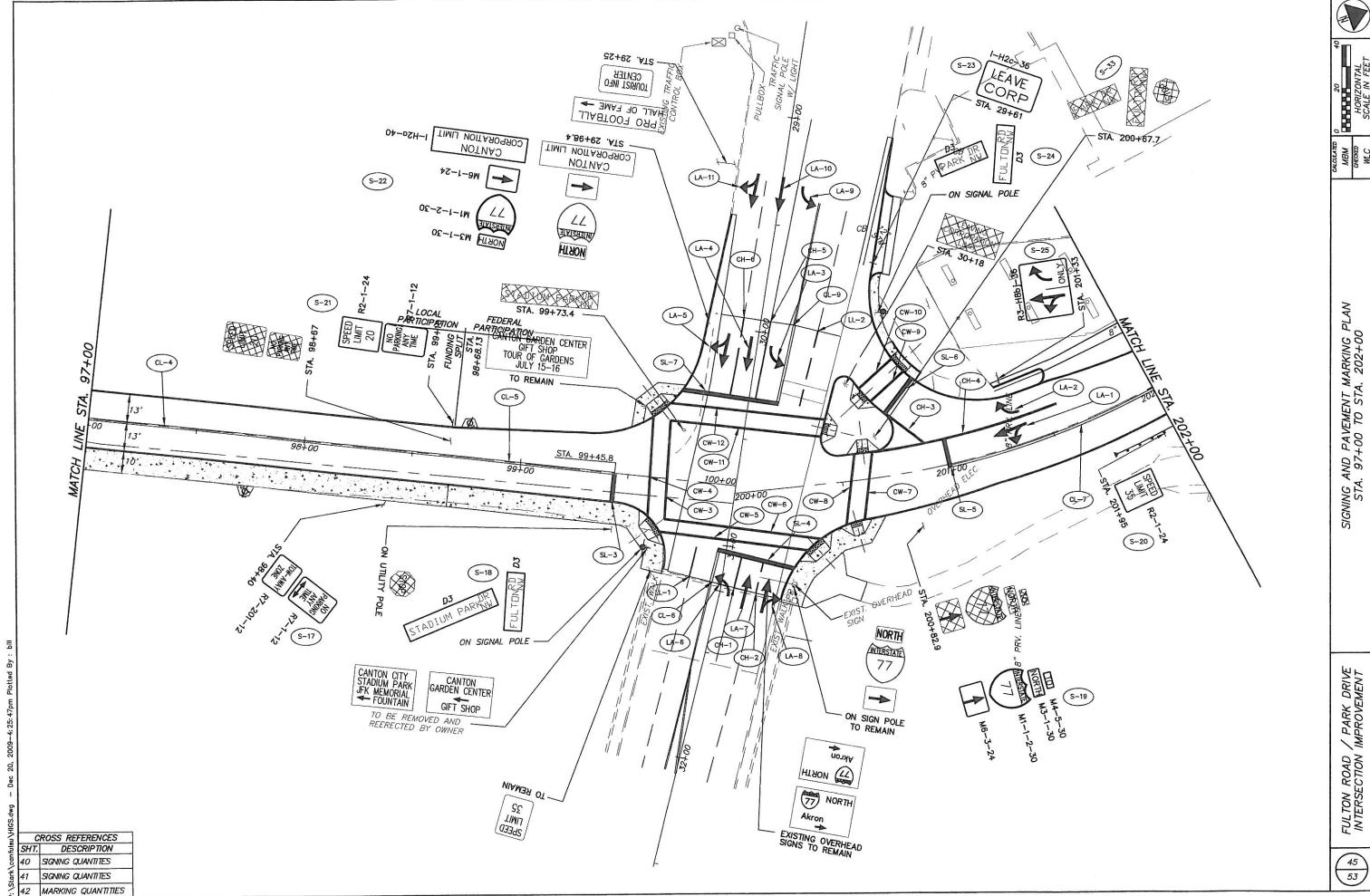
| | T | | - | | | 630 | 630 | 630 | 630 | 630 | 630 | 630 | | | | | | | | | | £ > 0 |
|-----------|----------|------------------|---------------|----------------------------------|--------------------|---------------------------------------|------------------|--|---|-------------|---|--------------|--------------|------|----------|----------|---|--------------|--------------|---|---|--------------------------|
| SHEET NO. | SIGN NO. | SIGN I | LOCATION | SIGN IDENTIFICATION NUMBER | SIGN DIMENSIONS | GROUND MOUNTED SUPPORT, NO. 3 POST | SIGN, FLAT SHEET | SIGN SUPPORT ASSEMBLY, POLE MOUNTED | REMOVAL OF GROUND MOUNTED SIGN AND REERECTION | | REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL | | | | | | | | | | | CALCULATE MBM MBM |
| | | STATION | SIDE | R7-1-12 | 12 x 18 | FT 12.5 | SQ FT | EACH | EACH | EACH | EACH | EACH | | | | | | + | | | | 1 |
| 43 | S-1 | 88+35 | RT | R7-1-12 | 12 x 6 | 12.5 | 0.5 | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | | | - |
| 43 | 5-2 | 90+50 | RT | R7-1-12 | 12 x 18 | 12.5 | 1.5 | | | 1 | 1 1 | - | | - | | + | | + | | 1 | | 1 |
| | | | | R7-201-12 | 12 x 6 | | 0.5 | | | | | | | | | | | | | | | 1 |
| 43 | S-3 | 88+13 | LT | | | 12.5 | | | 1 | | | | | | | | | | | | | 4 |
| | | | | | 70 70 | 40.5 | 7.00 | | | 1 2 | 1 | | | | <u> </u> | | | | | | | - |
| 43 | 5-4 | 89+80 | LT | R1-2-36 R7-1-12 | 36 x 36 12 x 18 | 12.5 | 3.90 1.5 | - | | 2 | ' - | | | - | | | | | | | | 9 |
| | | | | K7-1-12 | 72 % 10 | | 7.0 | | | | | | | | | | | | | | | SIGNING |
| 43 | S-5 | 90+68.8 | LT | R1-2-36 | 36 x 36 | 12.5 | 3.90 | | | 2 | 1 | | | | | - | | | | - | | - SX |
| | | | | 97.4.40 | 12 19 | 12.5 | 1.5 | | | 1 | 1 | | | | - | 1 | | | + | | | 1 ! |
| 43 | 5–6 | 90+67 | LT | R7-1-12 R7-201-12 | 12 x 18 12 x 6 | 12.5 | 0.5 | | | 1 | | | | | | | | | | | | 3 5 |
| | | | | | | | | | | | | | | | | | | | | | | 1 |
| 43 | S-7 | 91+09 | LT | | | 12.5 | | | 1 | - | - | | | | - | - | | | + | | | SUBSUMMARY |
| 47 | 6.0 | 91+21 | LT | R1-2-36 | 36 x 36 | 12.5 | 3.90 | | | 1 | 1 | | | - | | | | | | | | |
| 43 | 5-8 | 91+21 | | K1 2 50 | 00 x 00 | 12.0 | | | | | | | | | | | | | | | |] ~ |
| 43 | S-9 | 90+85 | LT | M3-1-30 | 30 x 15 | 18.5 | 3.13 | | | 4 | 1 | | | | | ļ | | - | | | | 4 |
| | | | | M1-1-30 | 30 x 30 | | 6.25 | | | 4 | | - | | | | - | - | + | | + | | - |
| | | | | M1-4-30 M6-1-24 | 30 x 30 24 x 18 | | 6.25 3.00 | | | 1 | | | | | | | | | | | | |
| | | | | mo / 21 | | | | | | | | | | | | | | | | | | |
| 44 | S-10 | 92+35 | RT | R7-1-12 | 12 x 18 | 12.5 | 1.5 | | | | - | - | | | | | - | - | | - | | + |
| | | | | R7-201-12 | 12 x 6 | | 0.5 | | - | 1 | - | | | | | | | 1 | | | | 1 |
| 44 | 5-11 | 92+35 | RT | R7-1-12 | 12 x 18 | 12.5 | 1.5 | | | 2 | 1 | | | | | | | | | | |] |
| | T | | | R7-201-12 | 12 x 6 | | 0.5 | | | | | | | | | | | | | | ļ | _ |
| | | | | 87.4.40 | 12 x 18 | 12.5 | 1.5 | | | 2 | 1 | - | ļ | | | | | - | | - | | - |
| 44 | S-12 | 96+40 | RT | R7-1-12 R7-201-12 | 12 x 18 | 12.5 | 0.5 | | | + | <u> </u> | | | | | | | | | | | |
| - | | | | | | | | | | | | | | | | | | | | | | _ |
| 44 | S-13 | 92+67 | LT | R7-1-12 | 12 x 18 | 12.0 | 1.5 | | | | | | | | - | | - | | - | | | |
| | 0.11 | 93+57 | LT | D5-H12a-30 | 30 × 30 | 12.5 | 6.25 | | | 1 | 1 | | | | | | | | | | | |
| 44 | S-14 | 33737 | | 30 7/124 00 | | | | | | | | | | | | | | | | | - | <u></u> ы. |
| 44 | S-15 | 94+67 | LT | R7-1-12 | 12 x 18 | 12.0 | 1.5 | | | | | | - | - | | | - | | | | | 1 % |
| | | 20.07 | 1.7 | R7-1-12 | 12 × 18 | 12.0 | 1.5 | | - | | | | | | | | | | | - | | 101 |
| 44 | S-16 | 96+67 | LT | K7-1-12 | 12 × 10 | 12.0 | 1.0 | | <i>u</i> | | | | | | | | | | | | |] కైర్ట |
| 45 | S-17 | 98+40 | RT | R7-1-12 | 12 x 18 | 12.5 | 1.5 | | | | | | | | | | | | | - | | 1 5 6 |
| | | | | R7-201-12 | 12 x 6 | | 0.5 | | | | 4 | - | | | - | | | | | + | | 1 /2 |
| 15 | C_10 | signal pole | | D3 | | | - | 1 | | | | 1 | | | | | | | | | | 1 80 E |
| 45 | S-18 | signar pore | | D3 | | | | 1 | | | | 1 | | | | | | | | | | FULTON ROAD / PARK DRIVE |
| | | | | | | 1== | 7.7 | | - | + | 1 | | | | | - | | + | | 1 | | 1 5 S |
| 45 | 5–19 | 20+82.9 | RT | M4-5-30 M3-1-30 | 30 x 15 | 18.5 | 3.13 3.13 | | | 4 | + '- | | | 1 | | | | | | | |] 52 |
| - | 1 | - | | M3-1-30 | 30 x 30 | - | 6.25 | † | | | | | | | | | | | | | | 1 4 |
| | | | | M6-3-24 | 24 x 18 | | 3.00 | | | | | | | | | | | | | | | - |
| | | | | | | | | | | | | - | | | | | - | | - | | | 40 |
| | TOTAL | S CARRIED TO GEN | VERAL SUMMARY | | | 236 | 73 | 2 | 2 | 21 | 10 | 2 | | | | | | | | 1 | | <u> </u> |

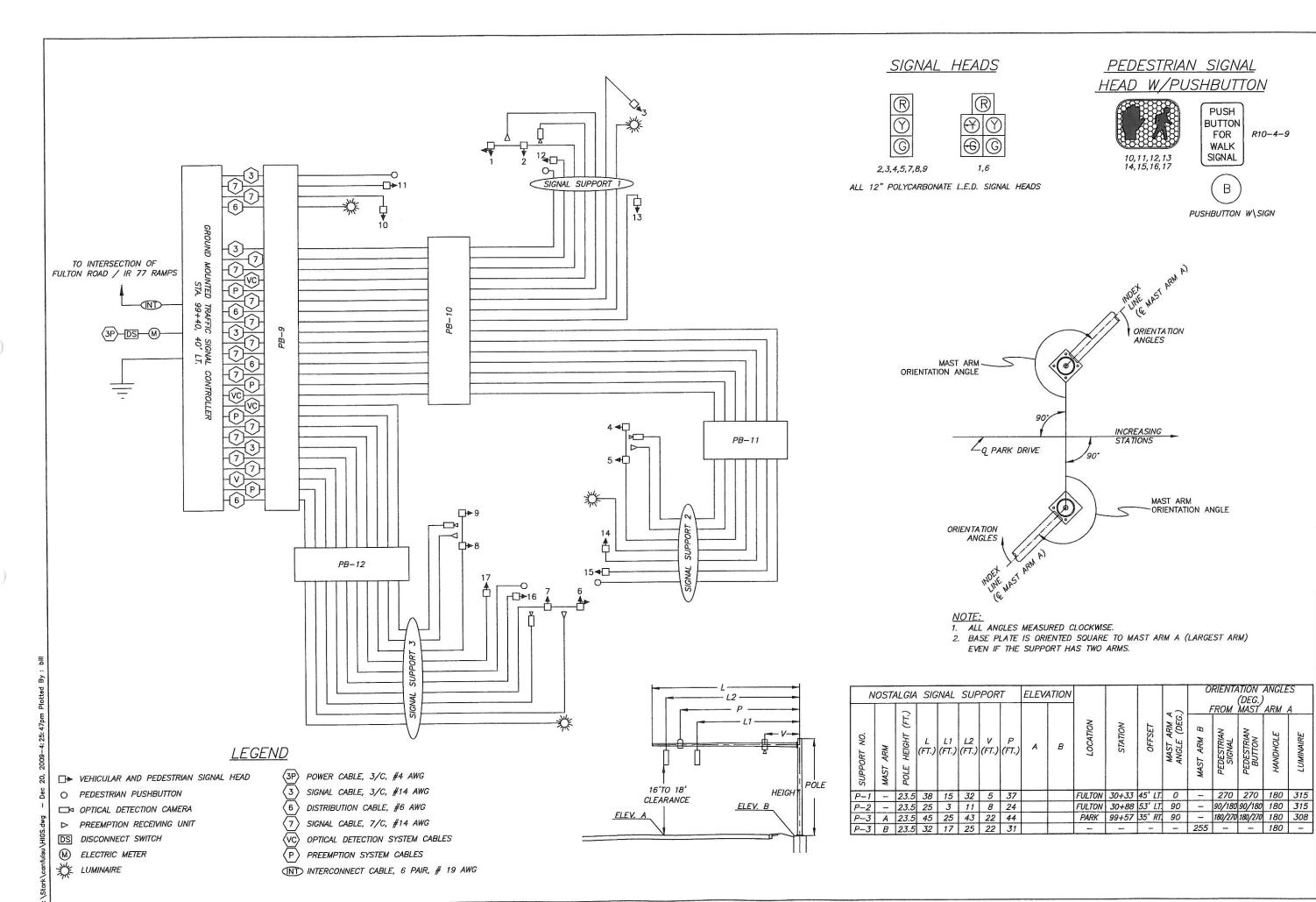
| | | | | | | 630 | 630 | 630 | 630 | 630 | 630 | 630 | | | | | | | | | <u> </u> |
|-----------|----------|-------------------|----------------|----------------------------------|--------------------|---------------------------------------|------------------|--|---|--|---|------------------------------------|----|---|----------|----------|---|--|--|---|--------------------------|
| SHEET NO. | SIGN NO. | SIGI | N LOCATION | SIGN IDENTIFICATION NUMBER | SIGN DIMENSIONS | GROUND MOUNTED SUPPORT, NO. 3 POST | SIGN, FLAT SHEET | SIGN SUPPORT ASSEMBLY, POLE MOUNTED | REMOVAL OF GROUND MOUNTED SIGN AND REERECTION | | REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL | SIGN, DOUBLE FACED, STREET NAME | | | | | | | | | омсиля |
| | | STATION | SIDE | | 0.4 70 | FT 10.5 | SQ FT | EACH | EACH | EACH | EACH | EACH | | | | | | | | | |
| 45 | 5-20 | 201+95 | RT | R2-1-24 | 24 x 30 | 12.5 | 5.0 | | | | | | | | | | | | | | |
| 45 | 5-21 | 99+10 | LT | R2-1-24 | 24 x 30 | 12.5 | 5.0 | | | 2 | 1 | | | | | | | | | | |
| | | | | R7-1-12 | 12 x 18 | | 1.5 | | | | | | l- | | | | | | | | |
| 45 | S-22 | 29+98.4 | RT | M3-1-30 | 30 x 15 | 31.0 | 3.13 | | | | | | | | | | | | | | |
| ,,, | | | | M1-1-30 | 30 x 30 | | 6.25 | | | | | | | | | | | | | | |
| | | | | M6-1-24 | 24 x 18 48 x 24 | | 3.0 8.0 | | | <u> </u> | | - | | | | | | | | | |
| | | | | I-H2a-48 | 40 X 24 | | 8.0 | | | | | | | | | | | | | | |
| 45 | 5-23 | 29+61 | LT | I-H2C-36 | 36 x 24 | 12.5 | 6.0 | | | | | | | | | | | | | | |
| | | | | | | | | 1 | | | | 1 | | | | | | | | | i |
| 45 | S-24 | signal pole | | D3 | | - | | 1 | | | | 1 | | | - | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | (|
| 45 | S-25 | 201+33 | LT | R3-H8bj-36 | 36 x 30 | 26 | 7.5 | | | | | | | | | -/ | | | | | |
| - 44 | 0.00 | 202 : 75 | LT | R3-H8bj-36 | 36 x 30 | 26 | 7.5 | | | | | | | | | | | | | | |
| 44 | S-26 | 202+75 | | KO-HODJ-50 | 00 x 00 | 20 | 7.0 | | | | | | | | | | | | | | |
| 44 | S-27 | 203+50 | LT | W3-3-36 | 36 x 36 | 14 | 9.0 | | | | | | | | | | | | | | |
| | | 200 05 | 77 | W6 7 76 | 36 x 36 | 14 | 9.0 | | | 2 | 1 | | | | | | | | | | |
| 44 | S-28 | 206+95 | RT | W6-3-36 | 36 x 36 | 14 | 3.0 | | | | | | | | | | | | | | |
| 43 | S-29 | ON GATE | LT | | | | | | | 1 | | | | | | | | | | | |
| | | | | | | | - | | | 1 | | | | | | | | | | | |
| 43 | 5-30 | ON GATE | RT | | | | | | | | | | | | | | | | | | |
| 43 | S-31 | 89+44.7 | RT | | | | | | | 1 | 1 | | | | | | | | | | |
| | | | | | | - | | | | 1 | 1 1 | | | | | | | | | | |
| 43 | 5-32 | 91+53.8 | RT | | | | | | | / | ' - | | | | | | | | | | |
| 45 | S-33 | 200+67.7 | LT | | | | | | | 3 | 1 | | | | | | | | | | |
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| | | | | | | | - | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | FULTON ROAD / PARK DRIVE |
| | | | | | | | | | | | | | | - | | | | | | - | —— § |
| | | | | | | | | | | | | | | | | | | | | | |
| - | ļ | | | | | | | | | | | | | | | | | | | | |
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| . | | | | | | | | | | | | | | | | | | | | | |
| | <u> </u> | 1 C 04 DD/FD TO 0 | ENERAL SUMMARY | | | 149 | 71 | 2 | 0 | 11 | 5 | 2 | | | 2000 200 | | | | | | |

| | | | | 642 | 642 | 642 | 642 | 642 | 642 | | | | | | 642 | 642 | 642 | 642 | 642 | 642 |
|------------|--------------|------------------|--------------|-------------------|---------------------|---|-------------------|------------------------|--------------------|-----------|--|-------------------|--------------|------|-------------------|---------------------|--|-------------------|---------------------------------------|--|
| SHEET NO. | SIDE | STA | TION | LANE LINE, TYPE 2 | CENTER LINE, TYPE 2 | CHANNELIZING LINE, TYPE 2 | STOP LINE, TYPE 2 | CROSSWALK LINE, TYPE 2 | LANE ARROW, TYPE 2 | SHEET NO. | SIDE | STA | ATION | | LANE LINE, TYPE 2 | CENTER LINE, TYPE 2 | CHANNELIZING LINE, TYPE 2 | STOP LINE, TYPE 2 | CROSSWALK LINE, TYPE 2 | LANE ARROW, TYPE 2 |
| | - | FROM | ТО | FT | FT | FT | FT | FT | EACH | | | FROM | ТО | | FT | FT | FT | FT | FT | EACH |
| 5 | CH-1 | 31+05.97 | 31+21.11 | | | 15.14 | | | | 43 | SL-1 | 31+21 | | | | | | 13 | | |
| 5 | CH-2 | 31+05.97 | 31+21.11 | | | 15.14 | | | | 43 | SL-2 | 21+02 | | | | | | 13 | | |
| 5 | CH-3 | 200+74.14 | 200+90.56 | | | 23 | | | | 45 | SL-3 | 99+45.8 | | | | | | 13 | | |
| | CH-4 | 200+66.46 | 201+56.12 | | | 86.77 | | | | 45 | SL-4 | 31+05.97 | | | | | | 36 | | |
| | CH-5 | 29+94.58 | 30+31.54 | | | 36.96 | | | | 45 | SL-5 | 201+00 | ļ | | | | | 13 | | |
| | | 20.01.50 | 70 / 71 54 | | - X-1 | 36.96 | | | | 45 | SL-6 | 200+82.15 | | | | | | 20 | | |
| i | CH-6 | 29+94.58 | 30+31.54 | | | 30.30 | | | | 45 | SL-7 | 30+31.54 | | | | | | 44 | | |
| | CL-1 | 88+10 | 89+65 | | 155 | | | | | 1000000 | | | | | | | | | | |
| _ | CL-2 | 90+13 | 91+50 | | 137 | | | | | | | | | | | | | | | |
| | CL-3 | 92+00 | 97+00 | | 500 | | | | | | | | | | | | | | | |
| | CL-4 | 97+00 | 98+68.13 | | 168.13 | | | | | | | | | | | | | | | |
| | CL-5 | 98+68.13 | 99+45.8 | | 77.67 | | | | | | | | | | | | | | | |
| | Ot C | 31+05.97 | 31+21.11 | | 15.14 | | | | | | | | | | | - | | | | |
| 5 5 | CL-6 CL-7 | 201+00 | 202+00 | | 100 | | | | | | | | | | | | | | | |
| 4 | CL-7 | 202+00 | 203+25 | | 125 | | | | | | | | | | | | | | | |
| 5 | CL-9 | 29+94.58 | 30+31.54 | | 35.96 | <u> </u> | | | | | | | | | | | | | | |
| - | CL-10 | 20+95 | 21+16 | | 21 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | CL-11 | 31+00 | 31+21.11 | | 21 | | | | | | | | | | | | | | | |
| 3 | CW-1 | 89+94.36 | | | | | | 44 | | | | | | | | | | | | |
| 3 | CW-2 | 90+02.39 | | | | | | 46 | | | | | | | | - | | | | |
| 5 | CW-3 | 90+68.12 | | | | | | 45 | | | | | | | | | | | | |
| 5 | CW-4 | 90+60.12 | | | | | | 45 | <u> </u> | | | | | | | | | | | |
| 1 5 | CW-5 | 30+97.21 | | | | | | 62 | | | | | | | | | | | | |
| 15 | CW-6 | 30+91.21 | | | | | | 62 | | | | | | | | | | | | |
| 15 | CW-7 | 200+62.12 | | | | | | 23 | | | | | | | | - | | | | - |
| 15 | CW-8 | 200+54.12 | | | | | | 23 | | | 1 | | | | | | | | | |
| 15 | CW-9 | 200+72.33 | | | | | | 20 | | | | | | | | | | | | |
| 5 | CW-10 | 200+77.32 | | | 1 | | - | 20 | | | | | | | | | | | | |
| 5 | CW-11 | 30+45.08 | | | | | | 70 | | | | | | | | | | | | |
| 1 5 | CW-12 | 30+37.08 | | | | | | 70 | | | | | | | | | | | | |
| | | 204 : 70 | | | | | | - | 1 | | | | | | | | | | | |
| 15 | LA-1 | 201+30 201+30 | | | | - | | + | 1 | | | | | | | | | | | |
| 45 | LA-2 | 30+15 | | | | | | - | 1 | | | <u> </u> | | | | | | | | |
| 45 45 | LA-3 | 30+15 | | | - | *************************************** | | | 1 | | A CONTRACTOR OF THE CONTRACTOR | | | | | | | 7 | | |
| 45 | LA-4 | 30+15 | | | | | | | 1 | | | | | | | | (Constitution of the constitution of the const | | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
| 45 45 | LA-6 | 31+21.11 | | | | | | | 1 | | | | | | | | | | | |
| 15 | LA-7 | 31+21.11 | | | | | | | 1 | | | | | | | | | | | |
| 15 | LA-8 | 31+21.11 | | | | | | | 1 | | | | | | | | | | | |
| 45 | LA-9 | 29+40 | | | | | | | 1 | | | | | | | | | | | |
| 45 | LA-10 | 29+40 | | | | | | | 1 | | | | | | | | | | | |
| 45 | LA-11 | 29+40 | | | | | | | 1 | | | SUB-TOTAL "I | 3 " | | | | | 152 | | |
| 45 | LL-1 | 31+05.97 | 31+21.11 | 15.14 | | | | | | | | SUB-TOTAL "/ | Δ" | | 53 | 1359 | 214 | | 530 | 8 |
| 45 | LL-2 | 29+94.58 | 30+31.54 | 36.96 | | | | | | | | JUB-TUTAL 1 | 7 | | | ,000 | | Control Control | | |
| | | | | | - | | | | | | TOTAL | S CARRIED TO GENE | RAI SIIMMARY | FT | | | 214 | 152 | 530 | 8 |
| | | | 'A" | 53 | 1359 | 214 | 656555 | 530 | 11 | | IUIAL | S CARRIED ID GENE | VAL SOMMAN | MILE | 0.01 | 0.25 | | | | |









 46

 53

FULTON ROAD / PARK DRIVE INTERSECTION IMPROVEMENT

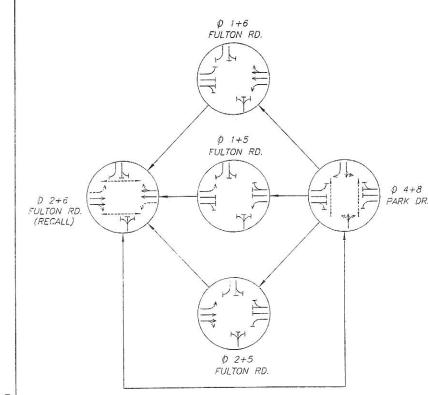
DETAILS

SIGNAL

VIDEO TRAFFIC SIGNAL DETECTORS GRAPHICAL INFORMATION

| CAMERA | ZONE | SIZE OF DETECTION ZONE | ASSOCIATED CONTROLLER PHASE | DELAY (SEC) | DELAY INHIBITED DURING PHASE | MODE |
|--------|------|------------------------------|-----------------------------------|----------------|---------------------------------|----------|
| C1 | C-1A | 8'(W) X 25'(L) | Ø 1 | 0 | | PRESENCE |
| C1 | C-1B | 8'(W) X 25'(L) | ф 6 | 0 | | PRESENCE |
| C1 | C-1C | 8'(W) X 25'(L) | ф 6 | 0 | | PRESENCE |
| C2 | C-2A | 8'(W) X 25'(L) | Ø 4 | 0 | | PRESENCE |
| C2 | C-2B | 8'(W) X 25'(L) | Ø 4 | 5 | Ø 4 | PRESENCE |
| C3 | C-3A | 8'(W) X 25'(L) | Ø 8 | 5 | Ø 8 | PRESENCE |
| C4 | C-4A | 8'(W) X 25'(L) | Ø 5 | 0 | | PRESENCE |
| C4 | C-4B | 8'(W) X 25'(L) | Ø 2 | 0 | | PRESENCE |
| C4 | C-4C | 8'(W) X 25'(L) | Ø 2 | 0 | | PRESENCE |

| | SIG FULTOI | | | G CHI PARK | | VE | | |
|-----------|---------------|-----|-------|---------------|-----|-----|-----|-----|
| | | | AM PE | | | | | |
| | | | | PH | 4SE | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | WBL | EBT | NBL | SBT | EBL | WBT | SBL | NBT |
| MINIMUM | 10 | 15 | - | 15 | 10 | 15 | - | 15 |
| MAXIMUM | 12 | 28 | - | 24 | 14 | 26 | - | 24 |
| EXTENSION | 3 | 3 | - | 3 | 3 | 3 | - | 3 |
| Y-CLEAR | 3 | 4 | _ | 4 | 3 | 4 | _ | 4 |
| ALL-RED | 1 | 2 | _ | 2 | 1 | 2 | - | 2 |
| WALK | - | 7 | _ | 7 | - | 7 | - | 7 |
| PED CLEAR | _ | 18 | - | 15 | - | 18 | - | 15 |
| RECALL | - | MIN | - | - | _ | MIN | - | - |
| | | | PM PE | AK | | | | |
| | | | | PHA | 4SE | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | WBL | EBT | NBL | SBT | EBL | WBT | SBL | NB |
| MINIMUM | 10 | 15 | - | 15 | 10 | 15 | - | 15 |
| MAXIMUM | 10 | 32 | _ | 22 | 10 | 32 | _ | 22 |
| EXTENSION | 3 | 3 | - | 3 | 3 | 3 | - | 3 |
| Y-CLEAR | 3 | 4 | - | 4 | 3 | 4 | - | 4 |
| ALL-RED | 1 | 2 | - | 2 | 1 | 2 | - | 2 |
| WALK | | 7 | - | 7 | - | 7 | - | 7 |
| PED CLEAR | | 18 | _ | 15 | - | 18 | - | 15 |
| RECALL | _ | MIN | _ | _ | - | MIN | _ | - |



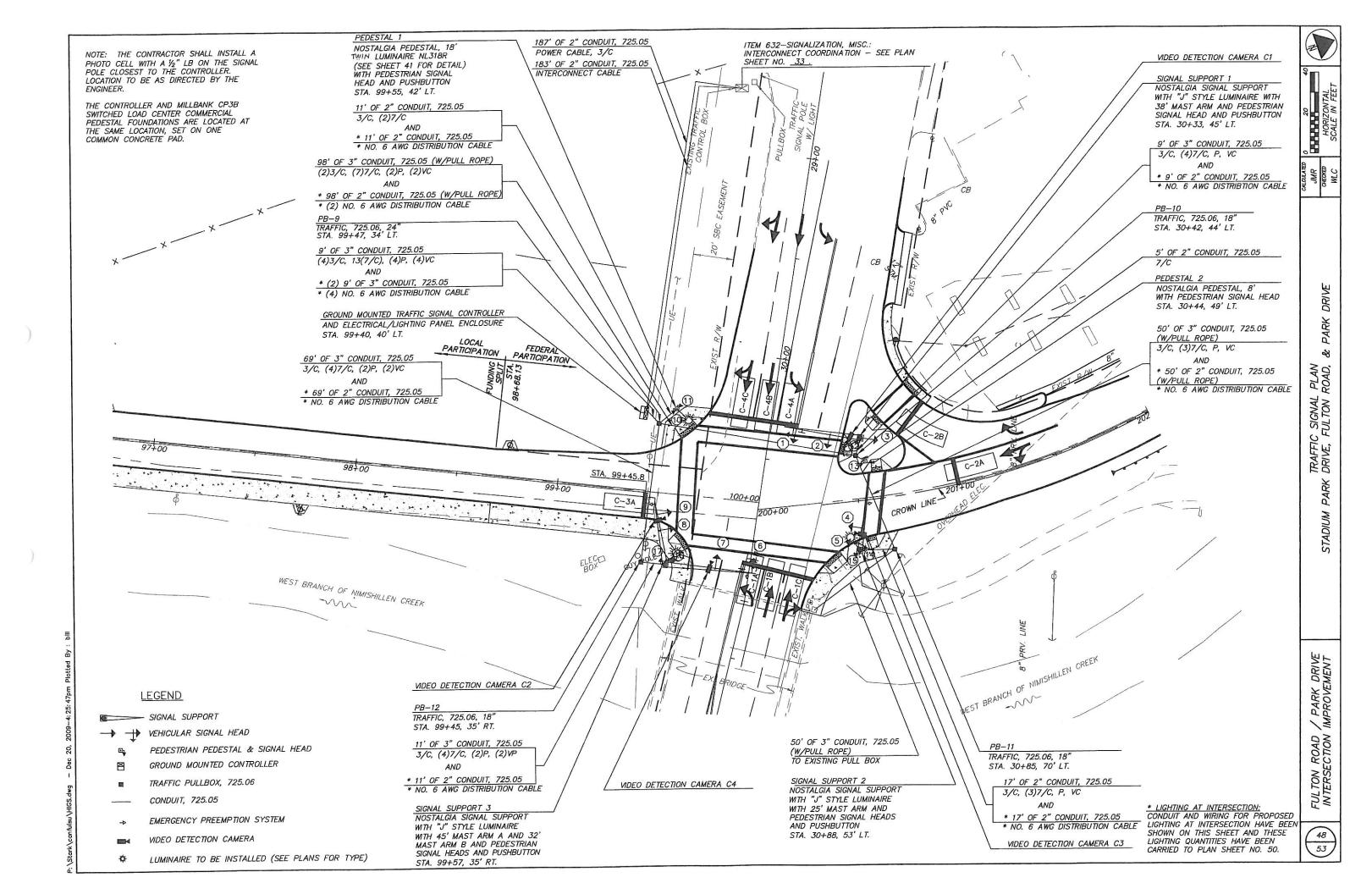
SIGNAL PHASING FULTON ROAD / PARK DRIVE

| PHASE | MOVEMENT | INTERVAL | | | | | | | ŞI | GNA | 4 <i>L</i> | NO. | er 100 14 20 | | | | | | |
|-------|----------|----------|----------------|---|---|---|---|----------------|----|-----|------------|-----|--------------|-----|------|-----|-----|-----|-----|
| PH | | // | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| | 77 | RW | G | G | R | R | R | G | G | R | R | | - | DW | - 22 | 300 | | DW | - |
| 2+6 | _^ | C1 | Y | Y | R | R | R | Y | Υ | R | R | | _ | | | - | - | _ | FDW |
| 6 | 7-W | C2 | R | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| | | RW | € _G | R | R | R | R | € _C | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| 1 | | C1 | +Y | R | R | R | R | ¥ _Y | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| 5 | | C2 | R | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| | | RW | € _C | G | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| 1 | J & | C1 | + _Y | Υ | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| 6 | R F | C2 | R | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| _ | | RW | R | R | R | R | R | € _G | G | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| 2 | JAN T | C1 | R | R | R | R | R | ¥ _Y | Y | R | R | _ | - | | _ | - | | - | DW |
| 2 + 5 | | C2 | R | R | R | R | R | R | R | R | R | _ | - | _ | _ | DW | | - | - |
| | · \ | | | | | | | | | | | | | | | | | | |
| | 2 1/2 | RW | R | R | G | G | G | R | R | G | | DW | - | - 1 | - | DW | | - | DW |
| 4 | 그! [] | C1 | R | R | Y | Υ | Y | R | R | Y | _ | DW | - | - | - | - | | - | - |
| 8 | | C2 | R | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| _ | FLASH | | Y | Y | R | R | R | Y | Y | R | R | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |

SIGNAL DISPLAY FULTON ROAD / PARK DRIVE

| PARTIC | IPATION | | | | | |
|---------|----------------|------|--------------|----------------|--------------|--|
| FEDERAL | | ITEM | ITEM EXT. | GRAND TOTAL | UNIT | DESCRIPTION |
| | | | | | | |
| | | | | | | TRAFFIC SIGNALS |
| 660 | | 625 | 25403 | 386 | FT | CONDUIT, 2", 725.05, AS PER PLAN |
| 322 | | 625 | 25503 | 322 | FT | CONDUIT, 3", 725.05, AS PER PLAN |
| 482 | | 625 | 29000 | 482 | FT | TRENCH |
| 217 | | 625 | 29601 | 217 | FT | TRENCH IN PAVED AREAS, TYPE B, AS PER PLAN |
| 3 | | 625 | 30702 | 3 | EACH | PULL BOX, 725.06, 18" |
| | | | | | | |
| 1 | | 625 | 30708 | 1 | | PULL BOX, 725.06, 24" |
| 5 | | 625 | 32000 | 5 | EACH | GROUND ROD, AS PER PLAN |
| 1 | | 625 | 32001 | 1 | EACH | GROUND ROD, AS PER PLAN |
| 708 | | 625 | 36000 | 708 | | PLASTIC CAUTION TAPE |
| 7 | | 632 | 05005 | 7 | EACH | VEHICULAR SIGNAL HEAD (LED), 3 SECTION, 12" LENS, 1 WAY, |
| | | | | | | POLYCARBONATE, AS PER PLAN |
| | | | | | | (17) 2 27701 10" 1712 1 1111 |
| 2 | | 632 | 05085 | 2 | EACH | VEHICULAR SIGNAL HEAD (LED), 5 SECTION, 12" LENS, 1 WAY, |
| | | | | | | POLYCARBONATE, AS PER PLAN |
| 8 | | 632 | 20721 | 8 | | PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, AS PER PLAN |
| 9 | | 632 | 25000 | 9 | | COVERING OF VEHICULAR SIGNAL HEAD |
| 8 | | 632 | 25010 | 8 | | COVERING OF PEDESTRIAN SIGNAL HEAD |
| 4 | | 632 | 26001 | 4 | EACH | PEDESTRIAN PUSHBUTTON, AS PER PLAN |
| 710 | | 270 | 10700 | 510 | (T | SIGNAL CABLE, 3 CONDUCTOR, NO. 14 AWG |
| 519 | | 632 | 40300 | 519 | - | SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG |
| 2035 | | 632 | 40700 | 2035 | | INTERCONNECT CABLE, 6 PAIR, NO. 19 AWG, SOLID, REA (PE-39), AS PER PLAN |
| 183 | | 632 | 53203 | 183 | - | SIGNAL SUPPORT FOUNDATION, AS PER PLAN |
| 3 | | 632 | 64011 | 2 | EACH EACH | PEDESTAL FOUNDATION, AS PER PLAN |
| 2 | | 632 | 64021 | 2 | EACH | PEDESTAL POUNDATION, AS TEXT CAN |
| 10 | | 632 | 69300 | 10 | FT | POWER CABLE, 3 CONDUCTOR, NO. 4 AWG |
| 1 | | 632 | 70001 | 1 | | POWER SERVICE, AS PER PLAN |
| 2 | | 632 | 80700 | 2 | | SIGNAL SUPPORT MISC.: NOSTALGIA SIGNAL SUPPORT - UNION METAL CORP. (ONE-ARM) |
| 1 | | 632 | 80700 | - | EACH | SIGNAL SUPPORT MISC.: NOSTALGIA SIGNAL SUPPORT - UNION METAL CORP. (TWO-ARM) |
| 1 | | 632 | 90010 | 1 | | PEDESTAL MISC.: NOSTALGIA PEDESTAL - UNION METAL CORP. (8') |
| | | 002 | 300.0 | | | |
| 1 | | 632 | 90010 | 1 | EACH | PEDESTAL MISC.: NOSTALGIA PEDESTAL WITH LUMINAIRE NL318R - UNION METAL CORP. (18') |
| LUMP | | 632 | 90300 | LUMP | | SIGNALIZATION, MISC.: INTERCONNECT COORDINATION |
| 1 | | 633 | 01581 | | EACH | CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TS1, AS PER PLAN (8 PHASE) |
| 1 | | 633 | 67100 | | EACH | CABINET FOUNDATION |
| 1 | | 633 | 67200 | | | CONTROLLER WORK PAD |
| | | | | | | |
| 2 | | 633 | 99000 | 2 | EACH | CONTROLLER, MISC.: PREEMPTION |
| 7 | | 633 | 99000 | 7 | EACH | CONTROLLER, MISC.: PREEMPTION RECEIVING UNIT |
| 2 | | 633 | 99000 | 2 | | CONTROLLER, MISC.: PREEMPT PHASE SELECTOR |
| 1079 | | 633 | 99100 | 1079 | | CONTROLLER, MISC.: PREEMPTION DETECTOR CABLE |
| 4 | | 816 | 30001 | 4 | | VIDEO DETECTION SYSTEM, AS PER PLAN |
| | | | | | | |
| | | | | | | I |

QUANTITIES CARRIED TO GENERAL SUMMARY



LIGHTING:

ITEM 625-LUMINAIRE, CONVENTIONAL, AS PER PLAN IN ADDITION TO THE REQUIREMENTS OF THE ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES FOR SIGNAL POLE LIGHTING SHALL BE UNION METAL CORPORATION, "J" STYLE LUMINAIRE WITH PLUMBIZER AND 250 WATT METAL HALIDE LAMP.

LUMINAIRE REFRACTORS SHALL BE UV-STABILIZED POLYCARBONATE OR ACRYLIC DOME REFRACTORS.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "LUMINAIRE, CONVENTIONAL, AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625-LUMINAIRE, POST-TOP, AS PER PLAN IN ADDITION TO THE REQUIREMENTS OF THE ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR POST-TOP LIGHTING UNITS USED IN GREEN SPACES OF REST AREAS SHALL BE AS FOLLOWS:

LUMINAIRES FOR PARK DRIVE LIGHTING SHALL BE UNION METAL CORPORATION NOSTALGIA LUMINAIRE NL318R WITH STYLE "G3" CAPITAL/GLOBEHOLDER AND LUMECON LUMINAIRE, 796-4060 ACORN, UA5, 48 LED XRC COOL/NEUTRAL 8 BAR 48W-60W.

LUMINAIRE REFRACTORS SHALL BE POLYCARBONATE GLOBE WITH ALABASTER RIPPLE

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "LUMINAIRE, POST-TOP, AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625-POWER SERVICE, AS PER PLAN IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING IS ADDED:

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS.

AMERICAN ELECTRIC POWER COMPANY 301 CLEVELAND AVENUE S.W. P.O. BOX 24630 CANTON, OHIO 44701-4630 TELEPHONE: (330) 438-7718

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHARGES MADE BY THE POWER COMPANY FOR WORK BY THE COMPANY IN CONJUNCTION WITH THE ESTABLISHMENT OF THE REQUIRED SERVICE. THIS ITEM SHALL INCLUDE RELOCATING THE OVERHEAD ELECTRICAL SERVICE TO UNDERGROUND BELOW PARK DRIVE, RELOCATING OR REPLACING TWO METERS INTO THE ELECTRICAL/LIGHTING PEDESTAL.

THE ITEM ALSO INCLUDES REMOVING THE EXISTING ELECTRIC POLE ON THE WEST SIDE OF PARK DRIVE. SEE ADDITIONAL NOTES ON PLAN SHEET NO. 51.

ELECTRICAL ENERGY FROM EXISTING POWER SERVICES SHALL CONTINUE TO BE CHARGED TO THE MAINTAINING AGENCY. THE CONTRACTOR SHALL PAY ELECTRICAL ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT. AFTER ACCEPTANCE OF THE LIGHTING, THE POWER SERVICE ELECTRICAL SERVICE ACCOUNT SHALL BE TRANSFERRED TO THE MAINTAINING AGENCY NOTED IN THE PLANS.

THIS SHALL INCLUDE NEW POWER SERVICE ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF EXISTING SERVICES DUE TO WORK PERFORMED BY THIS PROJECT.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "POWER SFRVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATER-IALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND

THE CONTRACTOR SHALL PROVIDE AND INSTALL ONE MILLBANK CP3B SWITCH LOAD CENTER COMMERCIAL PEDESTAL ON A COMMON CONCRETE FOUNDATION WITH THE TRAFFIC SIGNAL CONTROLLER CABINET (SHOWN ON PLAN SHEET 48), INCLUDE GROUND ROD PER DETAIL ON PLAN SHEET 39. THERE IS NO SEPARATE PAY ITEM FOR MILLBANK PEDESTAL AND GROUND ROD.

LIGHTING:

HIGH VOLTAGE TEST WAIVED

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON THE CIRCUITS CONSTRUCTED BY THIS PROJECT, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

PADLOCK AND KEYS

PADLOCKS FURNISHED SHALL BE WILSON BOHANNAN PADLOCK MODEL #11110, AND SHALL BE KEYED IN ACCORDANCE WITH CMS 631.06. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

ITEM 625-PULLBOX REMOVED AND REPLACED, AS PER PLAN THE CONTRACTOR SHALL REMOVE, REPLACE, AND ADJUST TO GRADE THE FOLLOWING TWO (2) PULLBOXES AT THE FOLLOWING LOCATIONS:

STA. 30+00±, 43'± LT., FULTON ROAD STA. 30+21±, 40'± LT., FULTON ROAD

THE PROPOSED PULLBOXES SHALL MEET ODOT SPECIFICATION 725.08 AT THE FOLLOWING LOCATIONS:

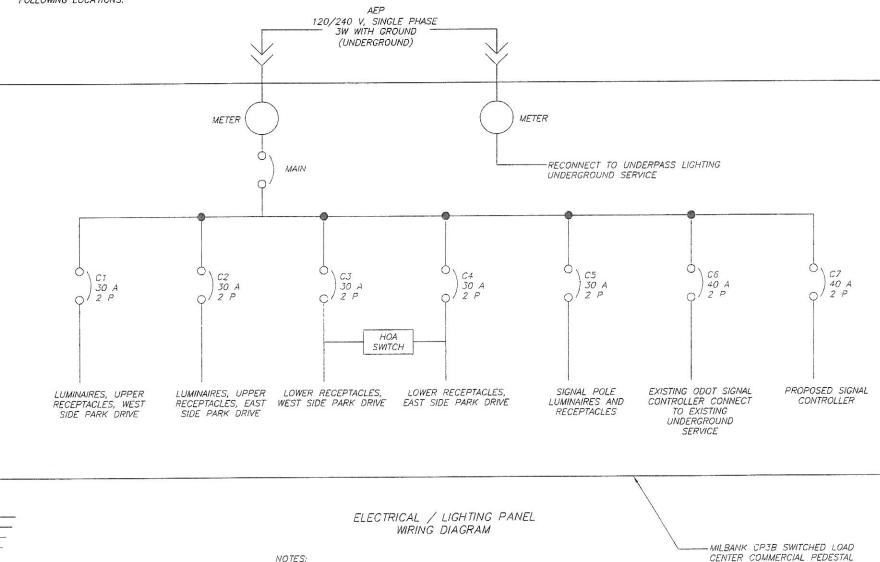
LIGHTING:

ITEM 625-POWER SERVICE REFURBISHED, AS PER PLAN THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL OF THOSE PORTIONS OF AN EXISTING POWER SERVICE NOT BEING REUSED AND THE INSTALLATION OF NEW POWER SERVICE COMPONENTS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

THE EXISTING OVERHEAD CONTACTOR COIL SHALL BE REMOVED AND SHALL BE REPLACED WITH A NEW LINE VOLTAGE UNDERGROUND CONTACTOR COIL. THE POWER SERVICE SHALL BE WIRED AS SHOWN IN STANDARD DRAWINGS AND AS DETAILED IN THE PLANS.

THE GROUND AREA IN THE VICINITY OF THE POWER SERVICE SHALL BE FREE OF ALL DEBRIS, AND SHALL HAVE GRASS TRIMMED.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH CMS ITEM 625, "POWER SERVICE REFURBISHED, AS PER PLAN" AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY WORKMANLIKE MANNER.



NOTES:

- 1.) CIRCUITS 1, 2, 3, 4 AND 5 TO BE CONTROLLED BY PHOTOCELL.
- 2.) CIRCUITS 3 AND 4 TO BE SET UP THAT PHOTOCELL CONTROL CAN BE OVERRIDDEN BY 24 HOUR TIMER AND/OR TURNED OFF BY HOA SWITCH.
- 3.) CIRCUITS 1, 2 AND 5 ARE TO BE CONTROLLED BY PHOTOCELL AND BY A SEPARATE HOA SWITCH.
- 4.) NO SPLICES PERMITTED IN PULL BOXES.

| | \neg | | | T | 625 | 625 | 625 | 625 | 625 | 625 | 625 | 625 | 625 | 625 | 625 | 625 | 625 | 625 | 625 | 625 | | | | | | | | E . |
|------------------|--------|--------|--------------------------------|---|--------------------|-----------------------|--|--|--|---|--|-----------|------------------|--------------------------|--|----------|------------------|----------|--------|---------|----------|---|---|-----|---|--|-----|--------------|
| | | | | | 020 | | AS | | | | જે | | 8 | | | | | | | | | | | | | | | MECULAT |
| NO. | • | L | | STATION | | | CORATIVE, | <i>NDA 110N</i> , | 0 V 18LE D) | o v ABLE D-GROUND) | V SLE NTERSECTI | 725.04 | 04, AS PE | VENTIONAL | Ť 70P, | | ED AREA, | 08, 24" | APP | NV TAPE | | | | | | | | 3 |
| SHEET N | | SIDE | ROAD | TO STATION | OR KIT, | OR KIT. | N. DEC | OLE FOUND, PLAN | S AWG 5000 RBUTION CABL PARK ROAD) | WG 500 TTON C, RK ROA | WG 5000 ITION CAE | 7, 3", 7; | 3, 725. | RE, CON PLAN | RE, POS PLAN | | IN PAV | 725. | , ROD, | CAUTION | | | | | | | | |
| KEF |) | | | | CONNECT TYPE II | CONNECTOR TYPE III | LIGHT POLI PER PLAN | LIGHT POLE AS PER PLA | NO. 6 A DISTRIBU (FOR PA | NO. 6 AWG 5000 V DISTRIBUTION CABLE (FOR PARK ROAD—GR | NO. 6 AWG 50 DISTRIBUTION (FOR FULTON-PA | CONDUIT | CONDUIT, PLAN | LUMINAIRE, AS PER PL, | LUMINAIRE," AS PER PL, | TRENCH | TRENCH TYPE B | PULLBOX, | GROUND | PLASTIC | | | | | | | | |
| | | | | | EACH | EACH | EACH | EACH | FT. | FT. | FT. | FT. | FT. | EACH | EACH | FT. | FT. | EACH | EACH | FT. | | | | | | | | |
| LIGHTING | FOR F | PARK R | ROAD | | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| 1 51 | | RT. | PARK DRIVE | 87+75.00 | 4 | 2 | 1 | 1 | | | | | | | 1 | | | | 1 | | <u> </u> | | | | | | | |
| 2 51 | | LT. | PARK DRIVE | 88+75.00 87+75.00 TO 89+75.00 | 4 | 2 | / | | 1050 | 420 | | 200 | | | • | 200 | | | | 200 | | | | | | | | |
| 3 51 4 51 | | RT. | PARK DRIVE PARK DRIVE | 89+75.00 | 4 | 2 | 1 | 1 | 7000 | | | | | | 1 | | | | 1 | | | | | | | | | |
| 5 51 | | LT. | | 88+75.00 TO 89+76.00 | | | | | 555 | 222 | | 101 | | | | 101 | | | | 101 | | | | | | | | |
| 6 51 | - | LT. | PARK DRIVE | 89+76.00 | | | | | | | | | | | - | | | 1 | | | | | | - | | - Here 15 | | |
| 7 51 | 1 L | LT. | | 89+76.00 TO 90+33.00 | | | | | 335 | 134 | | | 57 | | 1 | | 57 | 1 | | | | | | | | | | |
| 8 51 | - | LT. | PARK DRIVE | 90+33.00 | | | | | 275 | 110 | | 45 | | | - | 45 | | | | 45 | | | | | | 1 | | |
| 9 51 | -+- | LT. | PARK DRIVE | 90+33.00 TO 90+75.00 | | - | 1 | 1 | 275 | 110 | | 45 | | | 1 | 70 | | | 1 | | | | - | | | | | |
| 0 51 | | LT. | PARK DRIVE | 90+75.00 90+75.00 TO 91+09.00 | 4 | 2 | | | 220 | 88 | | 34 | | | | 34 | | | | 34 | | | | | | | | |
| 11 51 12 51 | | LT. | PARK DRIVE | 91+09.00 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| 13 51 | | LT. | PARK DRIVE | 91+04.00 TO 91+09.00 | | | | | | | | 43 | | | | 43 | | | | 43 | | | | | | | | |
| 14 51 | | LT. | PARK DRIVE | 91+04.00 | 4 | 2 | 1 | 1 | | | | | | | 1 | | | | 1 | - 50 | | | | | | - | | 9 |
| 15 51 | 7 1 | LT. | PARK DRIVE | 90+52.00 TO 91+04.00 | | | | | 310 | 124 | | 52 | | | | 52 | | | 1 | 52 | | | - | - | | | | |
| 16 51 | 1 1 | LT. | PARK DRIVE | 90+52.00 | 4 | 2 | 1 | 1 | 705 | 454 | | | 67 | | 1 | | 67 | | | | | | | - | | | | |
| 17 51 | | LT. | PARK DRIVE | 91+09.00 TO 91+76.00 | | | | | 385 | 154 | | | 67 | | - | | 07 | 1 | | | | | | | | | | |
| 8 51 | | LT. | PARK DRIVE | 91+76.00 | | | | | 1050 | 420 | | 200 | | | - | 200 | | | | 200 | | | | | | | | |
| 9 51 | | RT. | PARK DRIVE PARK DRIVE | 89+75.00 TO 91+75.00 91+75.00 | 4 | 2 | 1 | 1 | 7000 | 720 | | 200 | | | 1 | | | | 1 | | | | | | | | | |
| 20 51 21 52 | | RT. | PARK DRIVE | 91+75.00 TO 93+75.00 | - | - | | <u> </u> | 1050 | 420 | | 200 | | | | 200 | | | | 200 | | | | | | | | |
| 21 52 22 - 52 | | LT. | PARK DRIVE | 91+76.00 TO 92+75.00 | | | | | 1050 | 420 | | 200 | | | | 200 | | | | 200 | | | | | | | | |
| 23 52 | | LT. | PARK DRIVE | 92+75.00 | 4 | 2 | 1 | 1 | | | | | | | 1 | | | | 1 | | | | | | | | | |
| 24 52 | | RT. | PARK DRIVE | 93+75.00 | 4 | 2 | 1 | 1 | | | | | | | 1 | | | | 1 | | | | | | | | | |
| 5 52 | 2 | LT. | PARK DRIVE | 92+75.00 TO 94+75.00 | 7 | | | | 1050 | 420 | | 200 | | | | 200 | | | 1 | 200 | | | | | | | | |
| 26 52 | | LT. | PARK DRIVE | 94+75.00 | 4 | 2 | 1 | 1 | 1050 | 100 | | 200 | | | 1 | 200 | | | | 200 | | | | | | - | | |
| 27 52 | | RT. | | 93+75.00 TO 95+75.00 | | - | | 1 | 1050 | 420 | | 200 | | | 1 | 200 | | | 1 | | | | | | | | | |
| 28 52 | | RT. | PARK DRIVE | 95+75.00 94+75.00 TO 96+75.00 | 4 | 2 | | | 1050 | 420 | | 200 | | | | 200 | | | | 200 | | | | | | | | |
| 29 52 | | LT. | PARK DRIVE PARK DRIVE | 96+75.00 | 4 | 2 | 1 | 1 | 1 | | | | | | 1 | | | | 1 | | | | | | | | | |
| | | RT. | | 95+75.00 TO 97+75.00 | | | | | 1050 | 420 | | 200 | | | | 200 | | | | 200 | | | | | | | | |
| 100.0 | | LT. | PARK DRIVE | 96+75.00 TO 98+75.00 | + | | | | 1050 | 420 | | 200 | | | | 200 | | | | | | | | | | | | |
| | | RT. | PARK DRIVE | 97+75.00 | 4 | 2 | 1 | 1 | | | | | | | 1 | | | | 1 | 147 | | | | | | | | |
| 34 52 | 52 | RT. | PARK DRIVE | 97+75.00 TO 99+22.00 | 0 | | | ļ | 785 | 314 | | 147 | | | - | 147 | | 1 | | 147 | | | | - | | | | |
| 35 52 | | RT. | PARK DRIVE | 99+22.00 | <u> </u> | | | | | | | | | - | 1 1 | | | | 1 | 47 | | | | | | | | |
| 36 52 | | LT. | PARK DRIVE | 98+75.00 | 4 | 2 | 1 - 1 - | 1 | 285 | 114 | | 47 | | | ' | 47 | | | | | | | | | | | | |
| | | LT. | PARK DRIVE | 98+75.00 TO 99+22.00 99+22.00 RT. TO 99+22.00 LT | | | | + | 315 | 126 | | | 53 | | | | 53 | | | | | | | | | | | 7 |
| | | LT. | PARK DRIVE | 99+22.00 99+22.00 | <u>'-</u> | 1 | 1 | | | 1 | | | | | | | | 1 | | | | | | | | | | |
| | | RT. | PARK DRIVE | 99+37 | | 1 | | | | | | | | | | | | 1 | | | | | | | | | | \ |
| | | LT. | PARK DRIVE | 99+37 | | T | | | | | | | | | | | | 1 | | | | | | - | | | | A P. |
| | | LT. | PARK DRIVE | 99+22.00 TO 99+40.00 | 0 | | | | 330 | 132 | | 23 | | - | | 23 | | | | 23 | | | | | | | | / PARK DRIVE |
| | | | | | | | | | | | | | | | | | | | | | | | - | | | - | | |
| | | | | | | | | | - | | | | | | - | | | | | | | | | | | | | — A |
| | | | N-PARK INTERSEC | | | | | | | | | | | 1 | + | - | | | | | | | | | | | | - B |
| | | LT. | LUMINAIRES ON | 30+33 30+88 | - | - | - | - | - | | | | | 1 | | | | | | | | | | | | | | FULTON ROAD |
| | | | SIGNAL SUPPORTS 1, 2, AND 3 | 99+57 | 1 | - | + | | | | | | | 1 | | | | | | | | | | | | | | 5 |
| | 48 | RT. | FOR ALL (4) LUMINAIRE | | | | - | - | | | | | | | | | | | | | | | | | | | | |
| 4 | 48 L | | AT INTERSECTION | | | | | | | 8,935 (10-11) | 1116 | | | | | | | | | | | | | | | - | | |
| | | 1 | | DERAL PARTICIPATION | / | | | | | | 1116 | | | 3 | | | | | | | | | - | - | | | | |
| | | | | LOCAL PARTICIPATION | | 28 | 14 | 14 | 13245 | 5298 | | 2292 | 177 | | 14 | 2292 | 177 | 8 | 14 | 2292 | | | - | - | | | - | |
| | | | | RAL SUMMARY | 56 | 28 | 14 | 14 | 13245 | 5298 | 1116 | 2292 | 177 | 3 | 14 | 2292 | 177 | 8 | 14 | 2292 | | i | 1 | 4 / | 1 | I | l I | 1/2 |

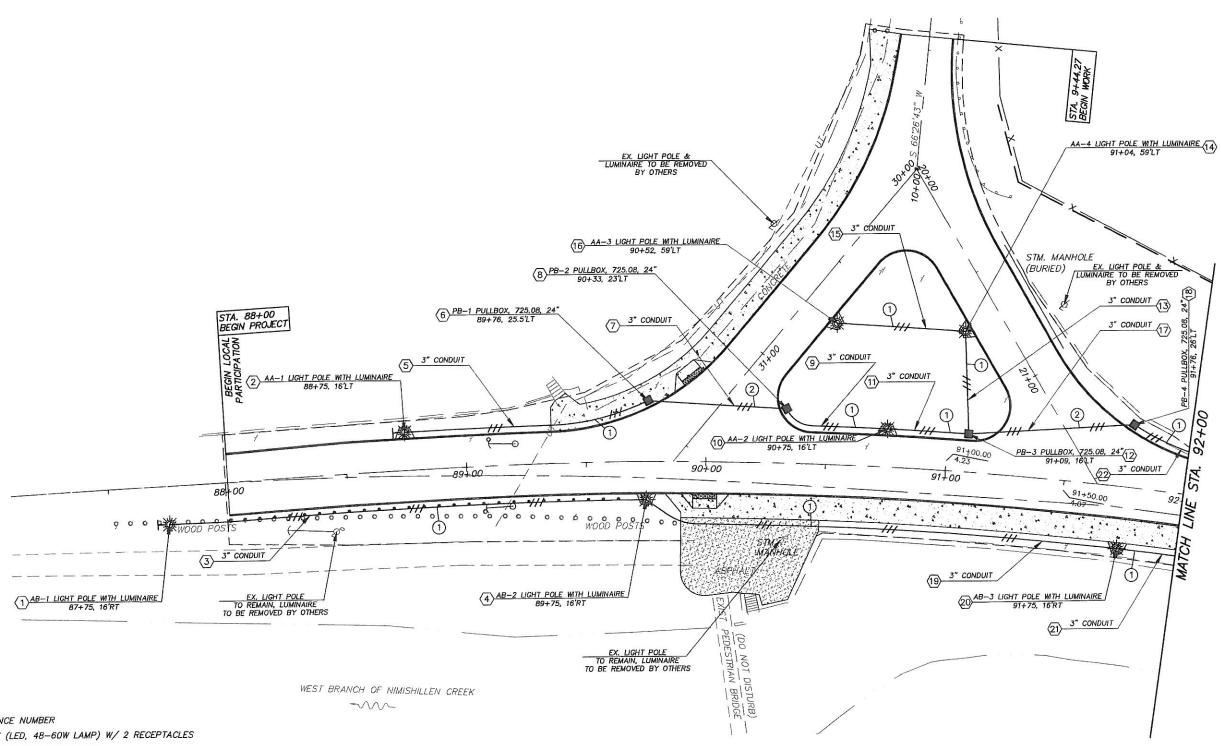




DRIVE - STADIUM PARK TO STA. 92+00

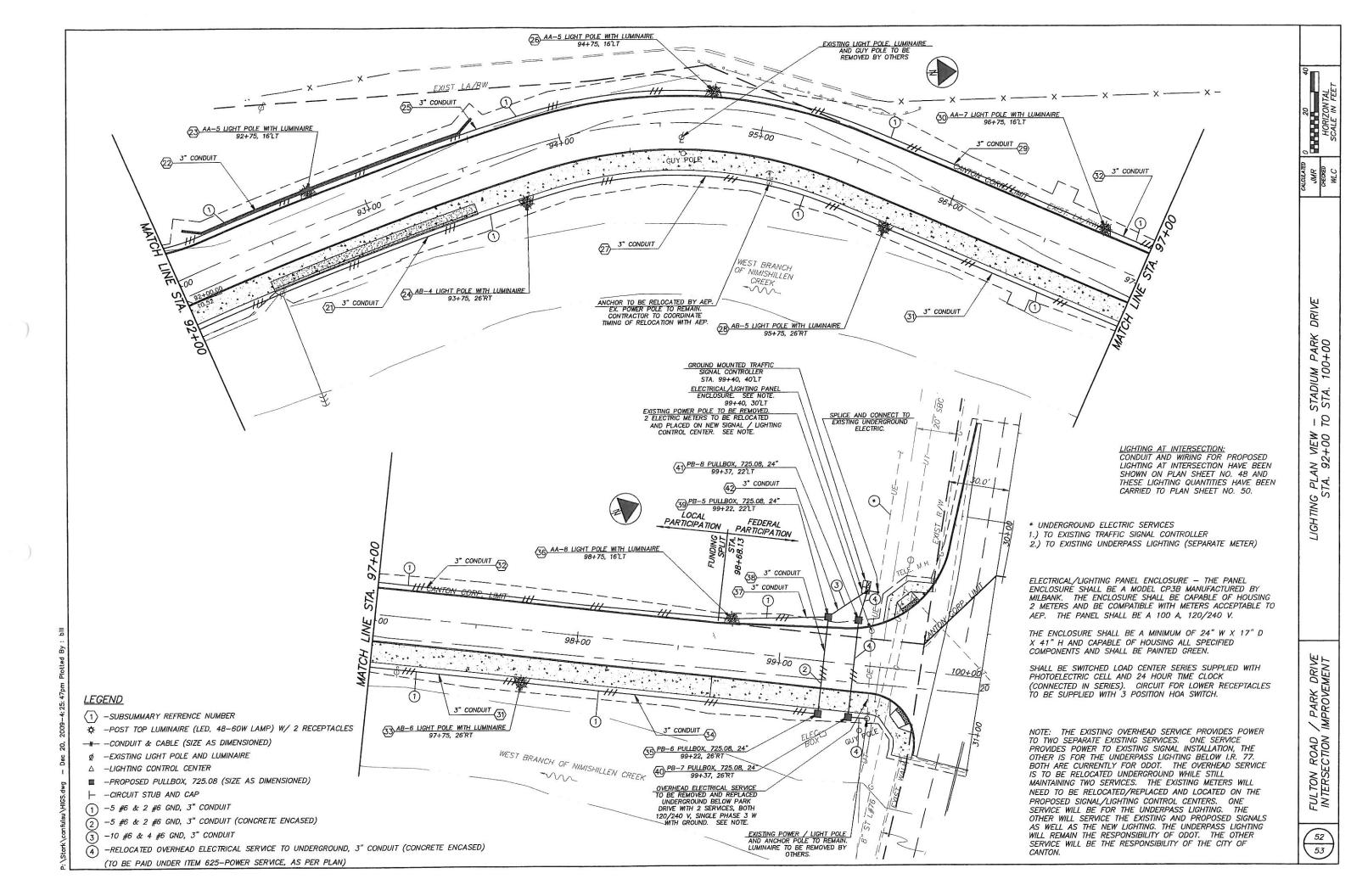
LIGHTING PLAN WEW STA. 87+00

FULTON ROAD / PARK DRIVE INTERSECTION IMPROVEMENT



<u>LEGEND</u>

- 1 -SUBSUMMARY REFRENCE NUMBER
- ♣ -POST TOP LUMINAIRE (LED, 48-60W LAMP) W/ 2 RECEPTACLES
- -# -CONDUIT & CABLE (SIZE AS DIMENSIONED)
- Ø −EXISTING LIGHT POLE AND LUMINAIRE
- △ -LIGHTING CONTROL CENTER
- -PROPOSED PULLBOX, 725.08 (SIZE AS DIMENSIONED)
- -CIRCUIT STUB AND CAP
- 1) -5 #6 & 2 #6 GND, 3" CONDUIT
- -5 #6 & 2 #6 GND, 3" CONDUIT (CONCRETE ENCASED)
- -10 #6 & 4 #6 GND, 3" CONDUIT
- -RELOCATED OVERHEAD ELECTRICAL SERVICE TO UNDERGROUND, 3" CONDUIT (CONCRETE ENCASED) (TO BE PAID UNDER ITEM 625-POWER SERVICE, AS PER PLAN)



THE CONTRACTOR SHALL NOTIFY THE CITY OF CANTON ENGINEERING DEPT. (330-489-3381) AND STARK SWCD (330-830-7700) AT LEAST 48 HOURS PRIOR TO BEGINNING ANY LAND DISTURBING OPERATIONS.

THE CONTRACTOR SHALL REMOVE EXISTING GROUND COVER ONLY AS NECESSARY FOR THE PROJECT PHASE CURRENTLY UNDER CONSTRUCTION.

ALL CLEARING AND GRADING OPERATIONS SHALL BE CONFINED WITHIN THE CONSTRUCTION LIMITS SHOWN ON THIS PLAN.

THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT SOIL TRANSPORT FROM THE CONSTRUCTION SITE ONTO PUBLIC OR PRIVATE LANDS WHERE SEDIMENT CONTROL BMPs ARE NOT IN PLACE.

NO SOIL, ROCK, DEBRIS OR OTHER MATERIAL SHALL BE DUMPED OR PLACED IN ANY AREAS NOT ADEQUATELY PROTECTED BY PROPER BMPs.

IF DEWATERING OPERATIONS ARE REQUIRED FOR THE INSTALLATION OF UNDERGROUND UTILITY LINES, EFFLUENT FROM THESE OPERATIONS SHALL BE DISCHARGED INTO A SEDIMENT POND UNLESS OTHERWISE

IN ADDITION TO THE SEEDING SPECIFICATIONS LISTED HEREIN, TEMPORARY AND PERMANENT SEEDING, AS SPECIFIED IN ODOT ITEMS 207 AND 659,

INLET PROTECTION BMPs SHALL BE INSTALLED FOR ALL CATCH BASINS AND STORMWATER MANHOLES WITH GRATED LIDS.

SEQUENCE OF BMP INSTALLATION

SILT FENCE SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF LAND-DISTURBING ACTIVITES AND SHALL REMAIN IN PLACE UNTIL CONSTRUCTION ACTIVITIES ARE COMPLETE AND UPSTREAM AREAS HAVE BEEN STABILIZED

INLET PROTECTION AND ALL OTHER BMPs SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE AND SHALL REMAIN IN PLACE UNTIL CONSTRUCTION ACTIVITIES ARE COMPLETED AND UPSTREAM AREAS HAVE BEEN STABILIZED.

TEMPORARY SEEDING SHALL BE PROVIDED FOR ALL EXPOSED SURFACES AND SOIL STOCKPILES WHERE PERMANENT SEEDING OR ADDITIONAL WORK IS NOT SCHEDULED FOR A PERIOD OF FORTY-FIVE (45) DAYS. SEEDING SHALL BE PROVIDED WITHIN FOURTEEN (14) DAYS AFTER CONSTRUCTION OPERATIONS CEASE

PERMANENT SEEDING SHALL BE PROVIDED FOR ALL EXPOSED SOIL SURFACES WITHIN FOURTEEN (14) DAYS AFTER FINISH GRADE IS REACHED.

AREAS WHERE TEMPORARY OR PERMANENT SEEDING HAS FAILED TO GERMINATE SHALL BE RESEEDED AND MULCHED AS NECESSARY TO ACHIEVE STABILIZATION. IF SEEDING FAILS TO GERMINATE IN THE AREAS OF TOPSOIL STOCKPILES. RESEEDING OR ADDITIONAL SILT FENCING MAY BE REQUIRED,

ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPs SHALL BE REMOVED WITHIN 30 DAYS AFTER SITE STABILIZATION IS ACHIEVED.

BMP MAINTENANCE
THE CONTRACTOR SHALL MAINTAIN AND REPAIR ALL EROSION & SEDIMENT CONTROL BMPs. ON-GOING INSPECTION OF BMPs WILL BE PERFORMED BY THE CITY OF CANTON AND/OR STARK SOIL & WATER CONSERVATION DISTRICT. ALL BMPs ARE SUBJECT TO FIELD MODIFICATION AT THE DISCRETION OF STARK SWCD AND/OR OHIO EPA.

ANY TRAPPED SEDIMENT OR DEBRIS REMOVED DURING CLEANING OF OR REMOVAL OF BMPs SHALL BE PLACED IN AREAS NOT SUBJECT TO EROSION AND PERMANENTLY

ADJACENT ROADS SHALL BE KEPT FREE OF DIRT AND DEBRIS AT ALL TIMES.

REGULAR INSPECTION AND MAINTENANCE SHALL BE PROVIDED FOR ALL CONSTRUCTION SITE BMPs. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT CONSTRUCTION PERIOD. INSPECTIONS MUST BE MADE A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES IN A 24 HOUR PERIOD. PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION, CERTIFICATION OF COMPLIANCE, AND CORRECTIVE MEASURES TAKEN.

SEQUENCE OF CONSTRUCTION

- 1. INSTALL PERIMETER SILT FENCING.
- INSTALL INLET PROTECTION.
- 3. ABANDON CATCH BASINS AND PLUG PIPES PRIOR TO PAVEMENT REMOVAL. 4. PERFORM SITE DEMOLITION ITEMS.
- FINAL GRADE AND CONSTRUCT REMAINING UTILITIES AND ALL STREET IMPROVEMENTS.
- 6 PERMANENTLY STABILIZE/SEED & MULCH OR SOD DISTURBED AREAS.
- 7 REMOVE REMAINING CONSTRUCTION BMPs.

<u>UTILITY NOTE:</u> THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ATTHOUGH HE DOES STATE THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

ROADWAY AREA IS IN FLOOD "ZONE C" AND CREEK IS IN FLOOD "ZONE A" (WEST LIMIT BEING APPROXIMATELY WEST CREEK BANK) AS PER FIRM FLOOD INSURANCE RATE MAP CITY OF CANTON, OHIO, STARK COUNTY, PANEL 3 OF 6. COMMUNITY -PANEL NO. 390512 0003B, EFFECTIVE DATE JANUARY 6, 1983.

AVOIDANCE OF WEST BRANCH OF NIMISHILLEN CREEK
THE PROPOSED TRANSPORTATION IMPROVEMENT IS DESIGNED TO AVOID IMPACTS TO THE WEST
BRANCH OF NIMISHILLEN CREEK. NO WORK SHALL BE PERFORMED BELOW THE IDENTIFIED
ORDINARY HIGH WATER MARK (OHWM) OF THE WEST BRANCH OF NIMISHILLEN CREEK. NO WORK
SHALL BE PERFORMED BELOW THE IDENTIFIED ORDINARY HIGH WATER MARK (OHM) OF THE WEST
BRANCH OF NIMISHILLEN CREEK. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE
EQUIPMENT AND/OR MATERIALS OR OTHERWISE IMPACT THE WEST BRANCH OF NIMISHILLEN
CREEK. TO PROTECT AND DELINEATE THE CREEK, A QUANTITY OF ITEM 832 CONSTRUCTION
FENCE AND A QUANTITY OF ITEM 832 PERIMETER FILTER FABRIC FENCE SHALL BE USED TO
DELINEATE THE CONSTRUCTION LIMITS FAST OF PARK DRIVE /STADIUM PARK DRIVE AND FENCE AND A QUANTITY OF ITEM 832 PERIMETER FILTER FABRIC FENCE SHALL BE USED TO DELINEATE THE CONSTRUCTION LIMITS EAST OF PARK DRIVE/STADIUM PARK DRIVE AND ADJACENT TO THE FULTION ROAD BRIDGE OVER THE WEST BRANCH OF NIMISHILLEN CREEK. THE CONSTRUCTION FENCE AND PERIMETER FILTER FABRIC FENCE IS TO BE INSTALLED AT THE PROPOSED CONSTRUCTION LIMITS WITHIN THE EXISTING RIGHT—OF—WAY, MAINTAINING A ONE—FOOT OR GREATER BUFFER BETWEEN THE FENCE AND THE CREEK CHANNEL. THE CONSTRUCTION FENCE AND THE PERIMETER FILTER FABRIC FENCE SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES WITHIN THESE LIMITS AND ADJACENT AREA, INCLUDING ANY NECESSARY CLEARING AND GRUBBING ACTIVITIES. THE FENCE SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT. USACE DEFINITION OF OHWM — THE ORDINARY HIGH WATER MARK IS THE LINE ON THE SHORES ESTABLISHED BY THE FLUCTUATIONS OF WATER AND INDICATED BY PHYSICAL CHARACTERISTICS SUCH AS A CLEAR, NATURAL LINE IMPRESSED ON THE BANK; SHELVING; CHANGES IN THE CHARACTER OF THE SOIL; DESTRUCTION OF TERRESTRIAL VEGETATION; THE PRESENCE OF LITTER AND DEBRIS; OR THE APPROPRIATE MEANS THAT CONSIDER THE CHARACTERISTICS OF THE SURROUNDING AREAS.

FLOOD HAZARD AREA DEVELOPMENT PERMIT

ACCORDING TO AVAILABLE FLOOD INSURANCE RATE MAPPING (FIRM) FOR THE CITY OF CANTON, STARK COUNTY; COMMUNITY PANEL NO. 3905120005B (EFFECTIVE DATE JANUARY 6, 1983), THE PROPOSED TRANSPORTATION IMPROVEMENT AREA IS LOCATED WITHIN THE 100—YEAR FLOOD PLAIN (ZONE A) OF WEST NIMISHILLEN CREEK. THE CITY OF CANTON FLOOD PLAIN PLAIN (ZONE A) OF WEST NIMISHILLEN CREEK. THE CITY OF CANTON FLOOD PLAIN ADMINISTRATOR ISSUED A FLOOD HAZARD AREA DEVELOPMENT PERMIT (PERMIT NO. 5-09) FOR THE PROJECT ON DECEMBER 4, 2009. THE COMPLETE/AUTHORIZED FLOOD HAZARD AREA DEVELOPMENT PERMIT SHALL BE PROVIDED TO THE CONTRACTOR BY CITY OF CANTON PERSONNEL PRIOR TO THE START OF PROJECT CONSTRUCTION. THE CONTRACTOR SHALL ADHERE TO ALL PERMIT TERMS AND CONDITIONS DURING PROJECT CONSTRUCTION.

STADIUM PARK UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR DISTURB THE EXISTING STONE RETAINING WALLS ALONG STADIUM PARK DRIVE. THE CONTRACTOR SHALL NOT USE STADIUM PARK DRIVE SOUTH OF HARRISON AVE. TO 12TH ST. NW FOR ACCESS OR STORAGE; THIS ROUTE MUST REMAIN OPEN FOR PARK USE ONLY.

ITEM 832 - EROSION CONTROL, STORM WATER POLLUTION PREVENTION

CONTRACTOR SHALL SUBMIT AN APPLICATION FOR A CO-PERMITTE NOTICE OF INTENT FOR COVERAGE UNDER OHIO EPA STORM WATER CONSTRUCTION GENERAL PERMIT.

THE AWARDED CONTRACTOR SHALL MEET WITH THE STARK SOIL & WATER CONSERVATION DISTRICT AND THE CITY ENGINEER TO REVIEW THE SITE PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT AMENDMENTS TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF REQUESTED BY STARK SWCD.

THE CONTRACTOR SHALL INSTALL AND MAINTAIN SEDIMENT AND EROSION CONTROL MEASURES AND A CONSTRUCTION FENCE AS REQUIRED BY THE SWPPP FOR THE WORK PROPOSED IN THIS CONTRACT. MEASURES WILL INCLUDE BUT ARE NOT LIMITED TO: PERIMETER FILTER FABRIC FENCING, INLET PROTECTION, AND TEMPORARY SEEDING AND MULCHING (ANNUAL RYE GRASS) ON DISTURBED LAND AREAS AND A CONSTRUCTION FENCE ALONG THE WEST BANK OF THE WEST BRANCH OF NIMISHILLEN CREEK. CONTRACTOR MUST INSTALL THE ANNUAL RYE GRASS IMMEDIATELY AFTER COMPLETING GRADING WORK AND PRIOR TO COMPLETING PERMANENT SEEDING TO STABILIZE THE SOILS. ITEM 832 EACH EROSION CONTROL - PROVIDE AN ENCUMBERED DOLLAR VALUE TO BE PLACED IN THE PROPOSAL FOR ITEM: 832 EROSION CONTROL, EACH. THIS AMOUNT IS FOR BOTH THE 'UNIT' AND 'TOTAL' FIELDS. THIS AMOUNT SHOULD ONLY BE PROVIDED IN THE BID PROPOSAL FORM.

THE ENGINEER WILL PAY FOR PROPERLY INSTALLED AND ACCEPTED BMP PER ITEM 832 EACH, EROSION CONTROL. BMP COMPENSATION WILL BE BASED ON THE UNIT PRICES SHOWN IN APPENDIX F OF SUPPLEMENTAL SPEC. 832. BMP COMPENSATION WILL BE BASED ON THE UNIT PRICES SHOWN IN APPENDIX F OF SUPPLEMENTAL SPEC. 832. THE ENGINEER WILL NOT PAY FOR BMP ITEMS WHICH ARE REQUIRED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE, CARELESSNESS, OR FAILURE TO INSTALL PERMANENT CONTROLS. THE ENGINEER WILL NOT PAY FOR BMP THAT DOES NOT PROVIDE EFFECTIVE SEDIMENT AND EROSION CONTROL FOR THE EDA. THE ENGINEER WILL NOT PAY FOR ANY CAUSEWAY AND ACCESS FILLS. THE ENGINEER WILL NOT PAY TO REPLACE BMP THAT HAVE FAILED AS A RESULT OF IMPROPER MAINTENANCE OR INSTALLATION. THE ENGINEER WILL NOT PAY FOR CONCRETE WASHOUT AREA BMP. CONCRETE WASHOUT AREA BMP ARE CONSIDERED INCIDENTAL TO THE CONCRETE WORK. THE ENGINEER WILL NOT PAY FOR BMP WHICH ARE REQUIRED AS A PART OF THE WORK AND ARE NOT SPECIFICALLY IDENTIFIED AS A SEPARATE ITEM. COMPENSATION FOR BMP THAT ARE REQUIRED FOR NPDES PERMIT COMPLIANCE AND ARE NOT INCLUDED IN APPENDIX F OF SUPPLEMENTAL SPECIFICATION 832 ARE CONSIDERED INCIDENTAL TO THE WORK.

ESTIMATED QUANTITIES

PERIMETER FILTER FABRIC FENCING (ODOT STD DWG DM-4.4)

1,400 L.F.

CONSTRUCTION FENCING (ODOT STD DWG DM-4.3)

1,400 L.F.

INLET PROTECTION(ODOT STD DWG DM-4.4)

32 EACH

TEMPORARY SEEDING AND MULCHING, ANNUAL RYE GRASS

5,000 S.Y.

POST-CONSTRUCTION STORM WATER MANAGEMENT

POST-CONSTRUCTION STORM WATER QUANTITY MANAGEMENT (I.E. DETENTION) IS NOT REQUIRED BY THE CITY OF CANTON ON THIS PROJECT.

POST—CONSTRUCTION STORM WATER QUALITY MANAGEMENT SHALL BE SATISFIED BY PROVIDING 12" SUMPS IN EACH CATCH BASIN, A 6" DIAMETER HOLE CORED INTO THE CENTER OF THE BOTTOM OF THE CATCH BASIN, AND THE CATCH BASIN SITTING ON A 12" BED OF NO. 57 OR NO. 67 STONES. THIS WILL PROMOTE GROUND WATER RECHARGE, FILTRATION ON FINES, AND CATCHMENT OF LARGER FLOATABLES. SEE CITY STANDARD DRAWING NO 2

CERTIFICATION:

CERTIFICATION:

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

DANIEL J. MOEGLIN, P.E., S.I.T., CANTON CITY ENGINEER

/ PARK DRIVE IMPROVEMENT FULTON ROAD INTERSECTION

74

NOIT

VEN

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LUTION

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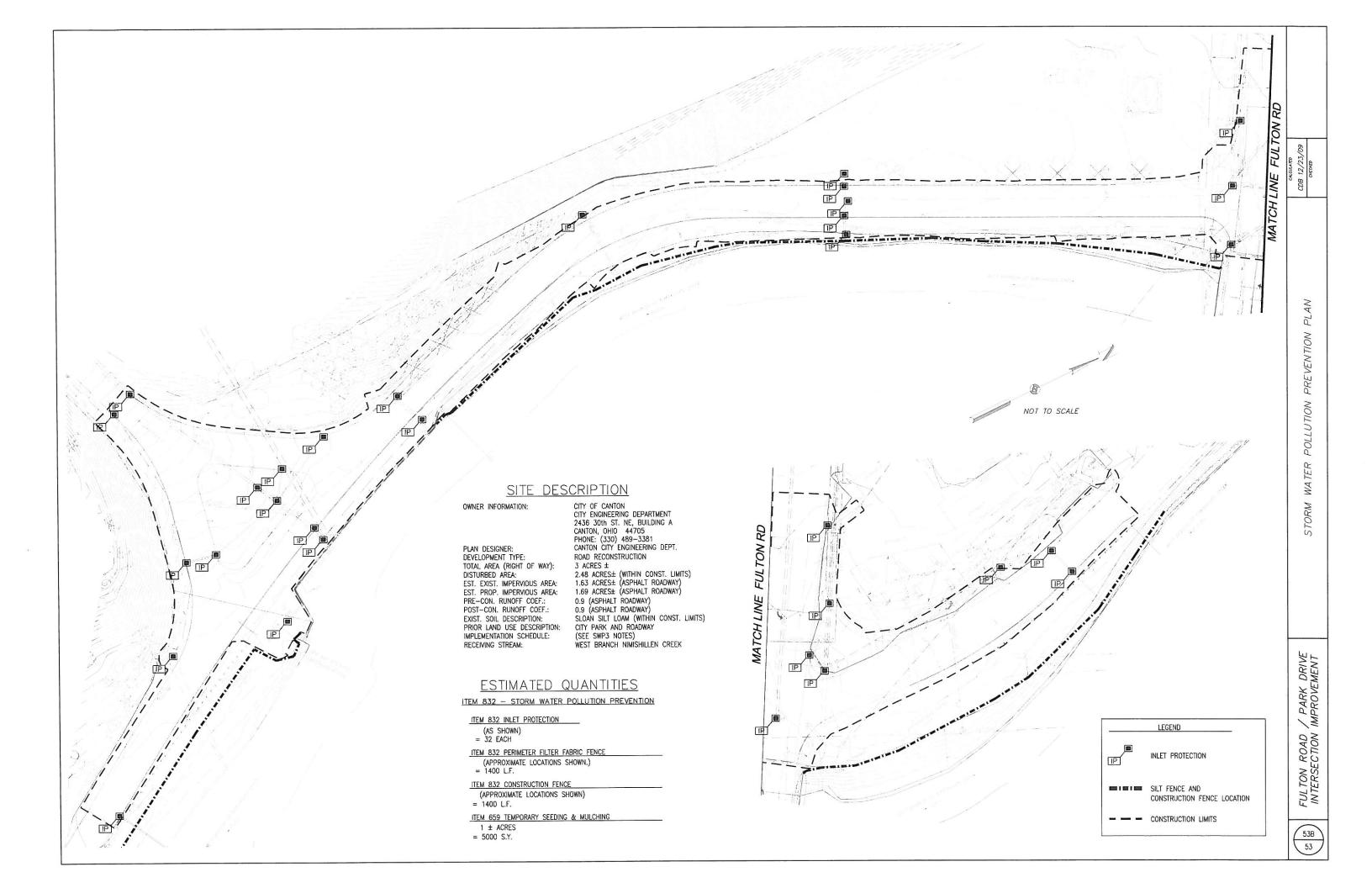
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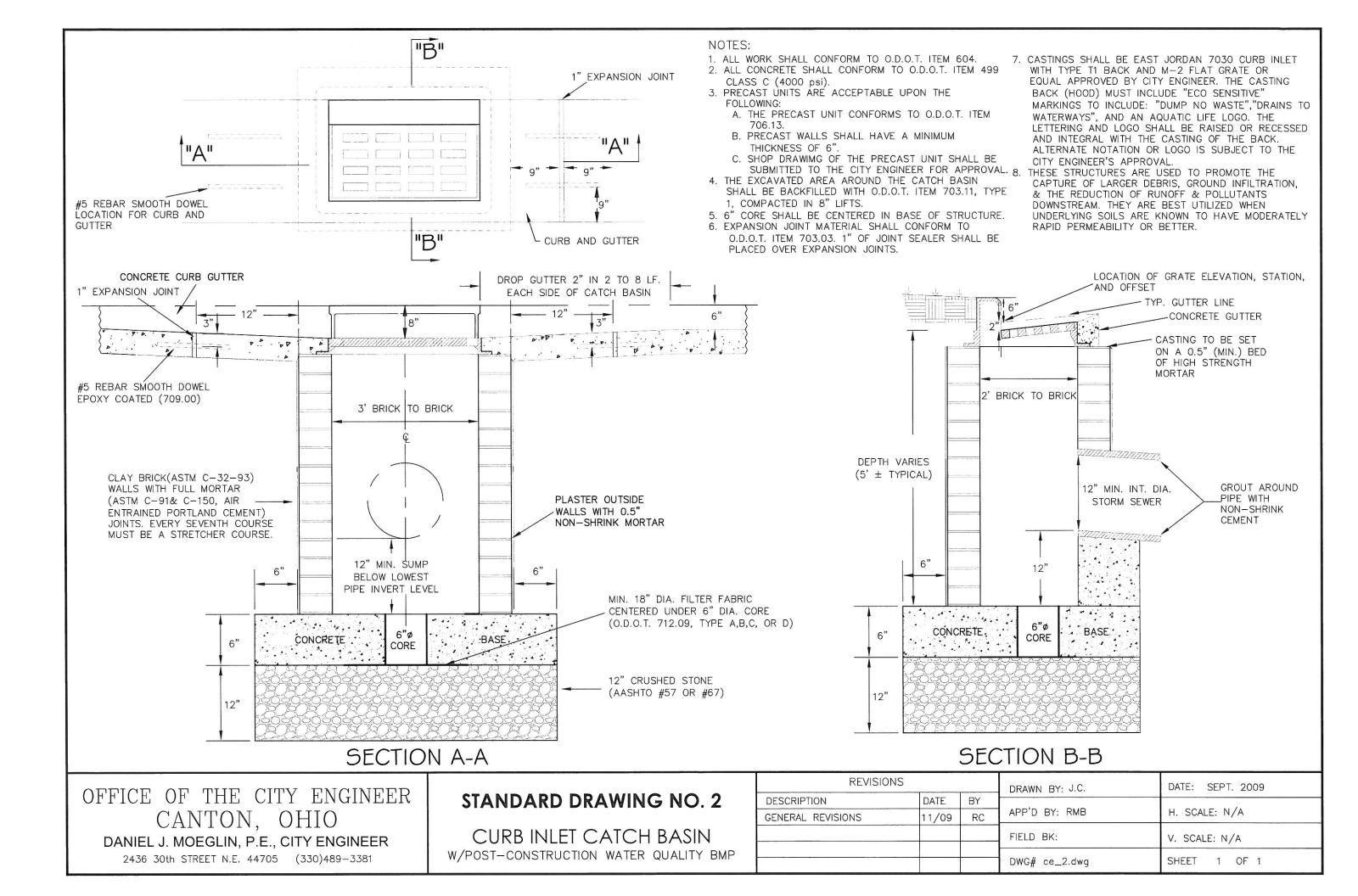
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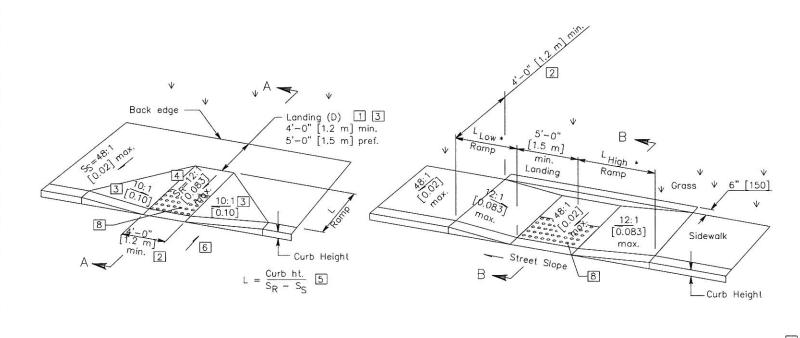
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| | AMENDMENT ACTIVITIES | OG OF GRADING, STABILIZATION, AND SWP3 | Le |
|------|----------------------|--|----------|
| DATE | ACTIVITY | DATE | ACTIVITY |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |







| Street | Ramp Length @ | 1"/ft [0.083] |
|--------|----------------|----------------|
| Slope | LLOW SIDE * | LHIGH SIDE * |
| 0.01 | 5'-5" [1.6 m] | 6'-10" [2.1 m] |
| 0.02 | 4'-10" [1.5 m] | 7'-11" [2.4 m] |
| 0.03 | 4'-5" [1.3 m] | 9'-5" [2.9 m] |
| 0.04 | 4'-1" [1.2 m] | 11'-8" [3.6 m] |
| 0.05 | 3'-9" [1.1 m] | 15'-2" [4.6 m] |

$$L_{HIGH} = \frac{Curb \text{ ht.}}{0.083 - \text{Street Slope}}$$

$$L_{LOW} = \frac{Curb \text{ ht.}}{0.083 + \text{Street Slope}}$$

LEGEND

- May be reduced to 3'-0" [915] in existing sidewalks if the landing is unconstrained along the back edge.
- May be reduced to 3'-4" [1.02 m] in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.
- Where landing width (D) has been reduced to 3'-0" [915] the flared sides shall have a maximum slope of 12:1 [0.083].

Flared sides are not required where the edges of a curb ramp are protected by landscaping or other barriers to travel by wheel chair users or pedestrians across the edge of the curb ramp. However, if the flared sides are used in these areas, they may be of any slope.

The slope of the ramp toward the curb is preferred to be 12:1 [0.083] or flatter related to the horizontal, but the maximum slope shall be 12:1 [0.083] relative to the existing or proposed walk slope.

In existing sidewalks, where the maximum ramp slope (S) $\,$ $\,$ R is not feasible, it may be reduced as follows:

- 10:1 [0.10] for a max. rise of 6" [150], 8:1 [0.125] for a max. rise of 3" [75], 6:1 [0.167] over a max. run of 2'-0" [610] for historic areas where a flatter slope is not feasible.
- The minimum length of a perpendicular ramp is 6 [2.0 m] from the back of a 6" [150] curb and may be increased where feasible to obtain a flatter ramp slope or to better blend with the walk configuration.
- Gutter counter slopes at the foot of perpendicular curb ramps should not exceed 20:1 [0.05] over a distance of 2'-0" [610] from the curb.
- Dimensions derived by equation are nominal. Construct ramps to meet required slopes and existing conditions.
- Detectable Warnings (truncated domes) are to be installed in the location shown. Dimensions of the domes are 24" [610] from the back of the curb by the width of the ramp. See NOTES on sheet 3.

| 48:1 [0.02] 48:1 [0.083] max. 48:1 [0.02] 48:1 [0.083] A |
|---|
|---|

See Sht. 3/3 for SECTION C-C

COMBINED CURB RAMP DETAIL

See Sht. 3/3 for SECTION A-A

PERPENDICULAR CURB RAMP DETAIL

B = C / 0.083 $C = [Curb ht. + A(S_S)] - [(A-D)S_R + D(0.02)]$ See Sht. 3/3 for SECTION B-B

PARALLEL CURB RAMP DETAIL (SINGLE)

See Sht. 3/3 for SECTION B-B PARALLEL CURB RAMP DETAIL

(DOUBLE)

OFFICE OF THE CITY ENGINEER CANTON, OHIO

DANIEL J. MOEGLIN, P.E., CITY ENGINEER 2436 30th STREET N.E. 44705 (330)489-3381

STANDARD DRAWING NO. 46 WHEELCHAIR RAMP

| REVISIONS | | DRAWN BY: RMB | DATE: JUN 2005 | |
|----------------------------|------|---------------|----------------|----------------|
| DESCRIPTION | DATE | BY | APP'D BY: | 81 |
| | | | APP D BY: | H. SCALE: NONE |
| 7 - 12 - 13 - 1 | | | FIELD BK: | V. SCALE: |
| | | | DWG# ce_46.dwg | SHEET 1 OF 3 |

AN BB

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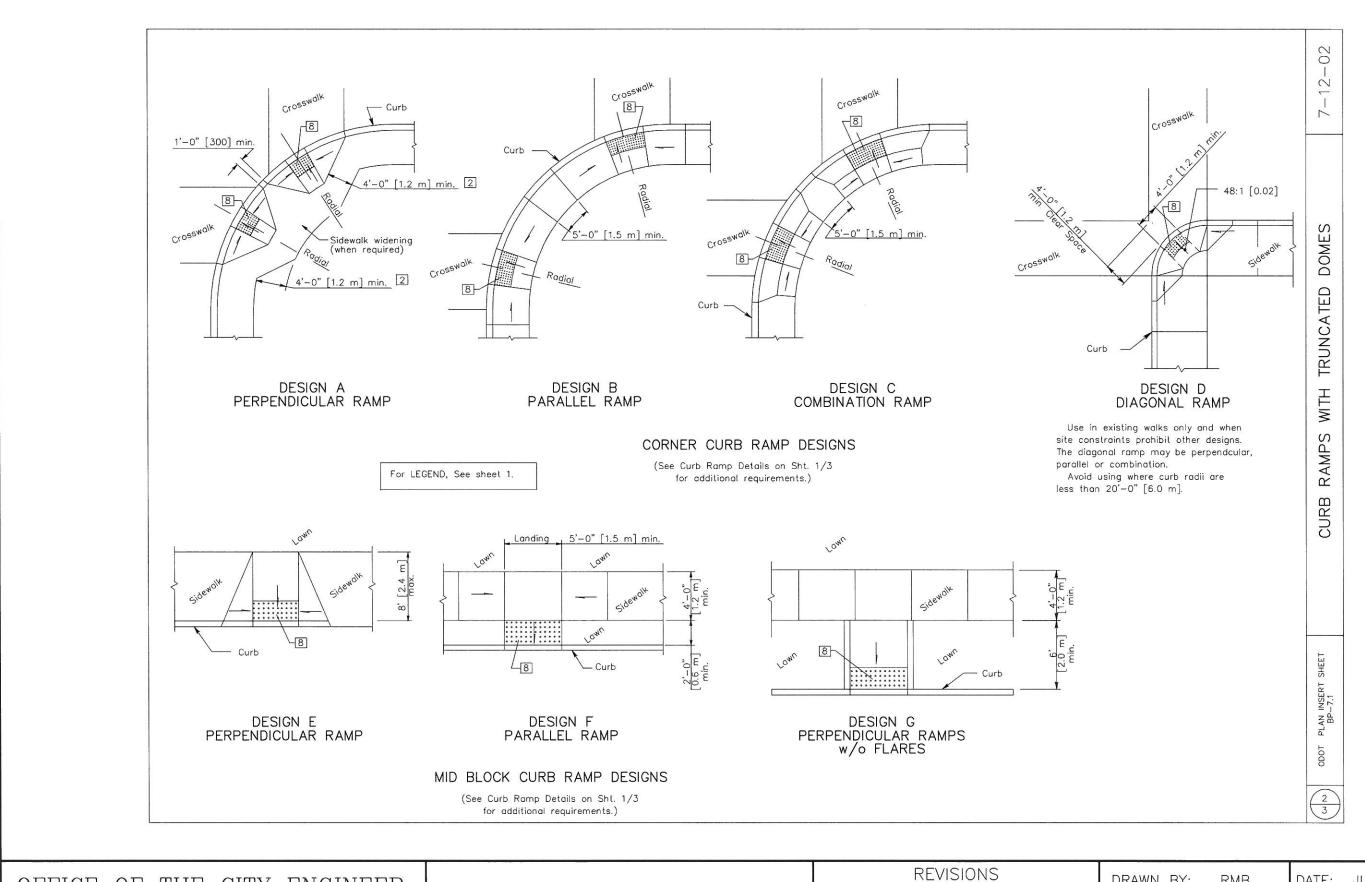
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DOMES

TRUNCATED

RAMPS

CURB



OFFICE OF THE CITY ENGINEER CANTON, OHIO

DANIEL J. MOEGLIN, P.E., CITY ENGINEER 2436 30th STREET N.E. 44705 (330)489–3381 STANDARD DRAWING NO. 46
WHEELCHAIR RAMP

| REVISIONS | | | DRAWN BY: RMB | DATE: JUN 2005 |
|--|------|-----------|----------------|----------------|
| DESCRIPTION | DATE | BY | APP'D BY: | H. SCALE: NONE |
| | | | | |
| | | FIELD BK: | V. SCALE: | |
| MOLECULAR TO THE PARTY OF THE P | | | DWG# ce_46.dwg | SHEET 2 OF 3 |

NOTES

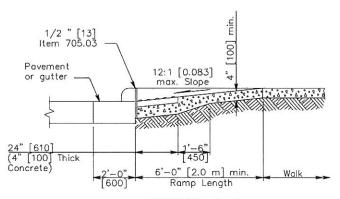
SURFACE TEXTURE: Texture of concrete surfaces shall be obtained by coarse brooming transverse to the ramp slopes and shall be rougher than adjacent walk.

TRUNCATED DOMES: Install detectable warnings (truncated domes) for a distance of 24" [610] from the back of the curb for the entire width of the ramp opening as shown on details on Sheet 1.

Pavers will meet ASTM C 902 Class SX, Type 1, or C 936, or C 1272 Type R. (SEE OPTION 4 FOR NON-BRICK)

Acceptable manufacturers and products are:

1) Whitacre-Greer Fireproofing Company,
1400 S. Mahoning Ave, Alliance, OH, 44601, (800) WG PAVER
ADA Paver, 4"x8"x2-1/4", Clear Red (Rustic) #30.



SECTION A-A NORMAL DETAIL See Sheet 1 of 3. (Gutter shown)

12:1 [0.083] max. Slope

Sealer applied per SCD BP-5.1.

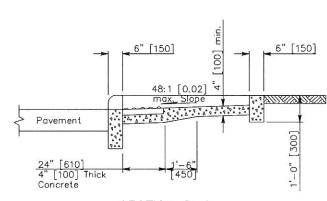
6'-0" [2.0 m] min. Ramp Length

Payment Length

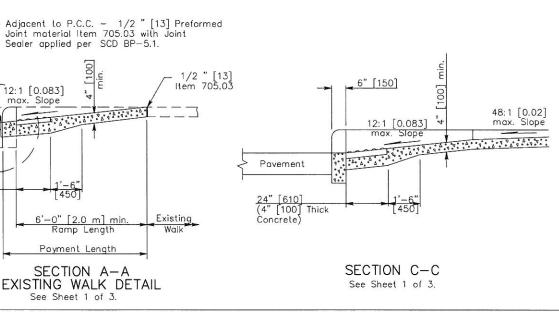
See Sheet 1 of 3.

SECTION A-A EXISTING WALK DETAIL

- 2) Hanover Architectural Products, 240 Bender Rd., Hanover, PA. 17331, (717) 637-0500 Detectable Warning Paver, 12"x12"x2", or 24"x24"x2", Red or Quarry Red.
- 3) Endicott Clay Products, PO Box 17, Fairbury, NE, 68352, (402) 729-5804 Handicap Detectable Warning Pover, 4"x8"x2-1/4", Red Blend.
- 4) The Belden Brick Company PO Box 20910, Canton, OH 44701 330-456-0031 City Line ADA Paver, Regimental Red 2-1/4"x4"x8" or 2-1/4"x8"x8"
- 5) Armorcast Products Company North Hollywood, CA 818-982-3800 Armorcast Detectable Warning Panels (Wet Set Panels) 24"x24", 24"x36", 24"x48"; also 6'-15' Radius Polymer Concrete, Red Brick color



SECTION B-B See Sheet 1 of 3.



Pavers will laid on top of a 4" [100] unreinforced concrete base. Setting bed and joints to be mortared in accordance with manufacturer's instruction, or with a maximum 1/2 " [13] thick bed of latex modified cemen mortar. Mortar joints to a width not greater than 5/32 " [4] and not less than 1/16 " [1.5]. Pavers shall not be directly touching each other unless they have spacing bars.

struck so as to give a smooth surface. Pavers shall be laid such that joints are level with adjoining joints so as to provide a smooth transition from brick to brick and brick to concrete surface.

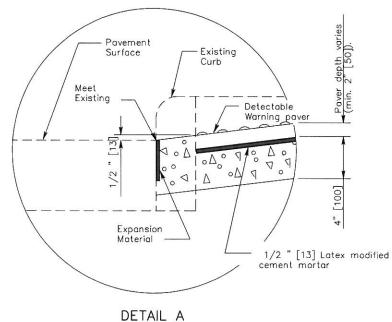
SWEEP SAND AND CEMENT MIXTURE (3:1) INTO JOINTS TO REFUSAL.

The surface of any two adjacent units should not differ by more than 1/8 " [3] in height. Bricks shall be placed in a running bond pattern. Face of all brick shall be clean of cement and protected so as to avoid chipping during constructionn.

EXPANSION JOINTS: shall be provided in the curb ramp as extensions of walk joints and consistent with Item 608.03 requirements for a new concrete walk.

A 1/2 " [13] Item 705.03 expansion joint filler shall be provided around the edge of ramps built in existing concrete walk. Lines shown on this drawing indicate the ramp edge and slope changes and are not necessarily joint lines.

PAYMENT: Walk and curb, Items 608 and 609, shaffnstructed measured through the curb ramp area paid for under their respective Items. Item 608 — Curb Ramp, As Per Plan, Each constructed in new curb and walk shall include the cost of any additional materials and installation (including truncated domes), grading, forming and finishing. Curb Ramp. As Per Plan, Square Foot [Meter], in existing curb and walk shall include the cost of furnishing and installing all materials (including truncated domes), grading, forming, and finishing of the curb and walk of the curb ramp. Removal of existing curb and walk shall be paid for under Item 202.



OFFICE OF THE CITY ENGINEER CANTON, OHIO

See DETAIL A

Saw Cut if Curb

is Monolithic with Pavement or Gutter

Remove

Existing

Curb

Existing Pave-

ment or Gutter

2'-0" [610] 4" [100] thick

DANIEL J. MOEGLIN, P.E., CITY ENGINEER 2436 30th STREET N.E. 44705 (330)489-3381

STANDARD DRAWING NO. 46 WHEELCHAIR RAMP

| REVISIONS | | | DRAWN BY: RMB | DATE: JUN 2005 |
|-----------------|--------|-----|----------------|----------------|
| DESCRIPTION | DATE | BY | APP'D BY: | LL COME NOME |
| PAVER JOINTS | 6/2005 | RMB | APP D BY: | H. SCALE: NONE |
| ARMORCAST PANEL | 5/2009 | RMB | FIELD BK: | V. SCALE: |
| BELDEN BRICK | 6/2009 | RMB | DWG# ce_46.dwg | SHEET 3 OF 3 |

DOMES TED TRUNCA 王 $\overline{\geq}$ RAMPS CURB

02

2

A A